

# SUSSEX COUNTY

## MULTI-JURISDICTIONAL ALL HAZARDS MITIGATION PLAN

### 2025 Update

### Volume II

*Prepared for:*  
*Sussex County Sheriff's Office*  
*Division of Emergency Management*  
*39 High Street, Newton, NJ 07860*

### April 2025



**TETRA TECH**





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## 1. INTRODUCTION

### 1.1 BACKGROUND

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for local hazard mitigation. Such planning efforts can generate a unified local voice on hazard mitigation, with cross-jurisdictional support for a hazard mitigation plan's recommended mitigation actions. They also help to form working relationships among participants' emergency managers, floodplain administrations, and other development agencies (FEMA 2021). Eligible participants for multi-jurisdiction hazard mitigation plans are local governments defined as follows in Title 44 of the Code of Federal Regulations, Part 201 (Mitigation Planning):

"Any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity." (44 CFR Section 201.2)

In multi-jurisdictional hazard mitigation planning, every participating jurisdiction must meet the federal requirements for local mitigation planning. This means that each jurisdiction must actively participate in the planning process and must officially adopt the plan (44 CFR Section 201.6a(4)).

For the Sussex County Hazard Mitigation Plan (HMP), a Planning Partnership was formed to leverage resources and to meet the federal local mitigation planning requirements for as many eligible governments in the County as possible. Members of the Planning Partnership consisted of representatives from each participating jurisdiction. Sussex County was the lead agency for this planning effort and directed the planning process with assistance from a contract planning consultant (Tetra Tech). A Steering Committee with broad representation across the county provided guidance and direction for the HMP planning process. Each participating planning partner has prepared a jurisdictional annex to this plan.

This chapter describes the Sussex County HMP Planning Partnership, its responsibilities throughout the planning process, and the jurisdictional annexes developed as a result of the plan update efforts. The remaining chapters in this volume of the HMP present the annexes for each participating jurisdiction.

### 1.2 PLANNING PARTNER INVOLVEMENT

#### 1.2.1 Initial Solicitation and Letters of Intent

Sussex County solicited the participation of all eligible jurisdictions in the County at the commencement of this project. All jurisdictions interested signed a letter of intent and/or a resolution committing their participation and resources to the development of the Sussex County HMP (Appendix A). The following is a list of the jurisdictions that participated in the update process and have met the minimum requirements of participation as established by the County and the Steering Committee:



- County of Sussex County
- Borough of Andover
- Township of Andover
- Borough of Branchville
- Township of Byram
- Township of Frankford
- Borough of Franklin
- Township of Fredon
- Township of Green
- Borough of Hamburg
- Township of Hampton
- Township of Hardyston
- Borough of Hopatcong
- Township of Lafayette
- Township of Montague
- Town of Newton
- Borough of Ogdensburg
- Township of Sandyston
- Township of Sparta
- Borough of Stanhope
- Township of Stillwater
- Borough of Sussex
- Township of Vernon
- Township of Walpack
- Township of Wantage

### 1.2.2 Planning Partner Expectations

The following list of planning partner expectations was agreed to in each letter of intent to participate:

- Identify municipal representatives to serve as the planning points of contacts. These people were responsible for representing the community and assuring that these participation expectations are met by their community.
- Support the Steering Committee selected to oversee the development of this plan.
- Provide representation at municipal Planning Committee meetings
- Provide data and information about the community as requested by the Steering Committee or the contract consultant, including:
  - Structure and facility inventory data
  - New development and anticipated development
  - Natural hazard risk areas
  - Natural hazard events and losses that have impacted the community in the last five years
  - Plans, studies, reports, and ordinances addressing natural hazard risk
  - Mitigation activity in the community in the last five years, including progress on previously identified mitigation actions.
- Support public outreach efforts in the community, which may include:
  - Providing notices of the planning project on the municipal website with links to a County project website
  - Providing notice of the planning project, the availability of plan documents, and notice of public meetings via available local media (e.g. newsletters, flyers, email blasts, social media, etc.)
  - Advertising and supporting public meetings in the area
  - Supporting outreach to National Flood Insurance Program (NFIP) Repetitive Loss and Severe Repetitive Loss property owners in the community.

The **Planning Partnership** is responsible for developing and reviewing draft sections of the hazard mitigation plan, creating the mitigation strategy for their jurisdiction, and adopting the final plan. Members of the Planning Partnership have the expertise to develop the plan and have their jurisdiction's authority to implement the mitigation strategy developed during the planning process.





- Assist with the identification of stakeholders within the community who should be informed and potentially involved with the planning process.
- Complete data and information collection survey forms in a timely manner.
- Identify specific mitigation actions to address each of the natural hazards posing significant (or high or medium) risk to the community.
- Involve the local NFIP Floodplain Administrator in the planning process.
- Review draft plan sections when requested and provide comment and input as appropriate.
- Adopt the plan by resolution of the local governing body after FEMA conditional approval.
- Periodically provide the Steering Committee with reports of municipal staff and volunteer labor spent on the planning process.

Under the plan implementation and maintenance protocol established in Volume I of the HMP, it is intended that the Planning Partnership will remain active to support maintenance of the HMP after the plan has been adopted. By adopting this plan, each planning partner agrees to the plan implementation and maintenance protocol. Given that individual commitments change over time, it will be the responsibility of each jurisdiction and its points of contact to inform the County's coordinator for this HMP of any changes in representation.

### 1.3 JURISDICTIONAL ANNEX PREPARATION PROCESS

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Jurisdictional annexes provide a unique, stand-alone guide to mitigation planning for each jurisdiction participating in a multi-jurisdiction HMP. The Sussex County HMP is organized so that there is an annex for Sussex County and for every jurisdiction within the County's borders. This volume of the HMP includes an annex for each jurisdiction in Sussex County, including those that did not fully participate.

Workshops and additional meetings (in person, by email, or by teleconference) to complete the jurisdictional annexes were held with the County, the contract consultant, and the Steering Committee throughout the planning process. Details regarding these meetings are described further in Volume I.

#### 1.3.1 Incorporation of Information from Previous HMP

In order to facilitate the update of the jurisdictional annexes, data from the 2021 Sussex County HMP annexes was transferred to the most current annex format, which has evolved to meet changing federal and state criteria. Clear instructions were provided to the representatives of each planning partner. This transfer of information provided a basis to address the following:

- Changes in local capabilities and vulnerabilities
- The current status of the 2021 HMP mitigation strategy
- A new mitigation strategy to address identified issues and to increase community resiliency

#### 1.3.2 Kickoff Meeting

The County invited all municipalities to participate in a planning partner kickoff meeting held on March 15, 2023, to provide an overview of the planning process, including meetings and worksheets that would be used to gather information for annex preparation. Key elements of the worksheets were discussed and subsequently completed by the appropriate jurisdictional personnel for each worksheet. The worksheets were collected, and the information



was incorporated into each jurisdictional annex. In the event additional information was needed, the jurisdictional point of contact was contacted to provide more input into their annex.

### 1.3.3 Hazard Ranking Exercise

At the risk assessment meetings on April 9 and April 11, 2024, the consultant summarized the findings of the risk assessment for the hazards of concern evaluated in this HMP, including an initial ranking of hazards using the risk-related ranking methodology described in Volume I. Each planning partner was asked to review the hazard ranking for its jurisdiction and revise as appropriate based on history of events, probability of occurrence, and the potential impact on people, property, and the economy. This exercise familiarized the planning partners with how to use the risk assessment as a tool to support other planning and hazard mitigation processes and to help prioritize types of mitigation actions that should be considered. Hazards that were ranked as “high” for each jurisdiction as a result of this exercise were considered to be priorities for identifying appropriate mitigation actions, although jurisdictions also identified actions to mitigate “medium” or “low” ranked hazards as appropriate.

### 1.3.4 Mitigation Strategy Workshop

A mitigation strategy workshop was held on May 8, 2024, to provide an overview on how to develop a strong mitigation strategy. In preparation for this workshop, the consultant provided a list of problem areas and vulnerabilities identified during the planning process, along with feedback from the citizen survey, to support the development of relevant projects for the mitigation strategy. Workshop participants received the following FEMA publications to use as a resource as part of a comprehensive review of all possible activities and mitigation measures to address hazards of concern:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

This workshop included the development of focused problem statements based on the impacts of natural hazards in the County and its communities. These problem statements provide detailed descriptions of problem areas, including known impacts on the jurisdiction (past damage, loss of service, etc.). Where possible, the statements include the street address of the problem location, adjacent streets, water bodies, and well-known structures as well as a brief description of existing site conditions (topography, terrain, hydrology). The problem statements form a bridge between the risk assessment (which quantifies impacts on each community), the capability assessment (which identifies capabilities for reducing hazard risks and supporting hazard mitigation), and the development of actionable mitigation strategies.

The County and the mitigation consultant worked with each jurisdiction to identify clear, implementable mitigation actions and to further support the completion of the jurisdictional annexes.

## 1.4 JURISDICTIONAL ANNEX FORMAT

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The jurisdictional annex format is designed to document local compliance with the 44 CFR local mitigation planning regulations. It also achieves the following:

- Providing a locally relevant synthesis of the overall mitigation plan that can be readily presented, distributed, and maintained
- Facilitating local understanding of the community’s risk from natural hazards



- Facilitating local understanding of the community's capabilities to manage natural hazard risk, including opportunities to improve those capabilities
- Facilitating local understanding of the efforts the community has taken, and plans to take, to reduce its natural hazard risk
- Facilitating the implementation of mitigation strategies, including the development of grant applications
- Providing a framework by which the community can continue to capture relevant data and information for future plan updates

The following are the elements of the jurisdictional annex.

- **Section X.1: Hazard Mitigation Planning Team:** Identifies the hazard mitigation planning primary and alternate contacts and floodplain administrator. Provides details on which departments were involved in the development of the jurisdictional annex. The widest range of departments, stakeholders, and persons familiar with the jurisdiction should be involved in the development of the jurisdictional annexes. Further detail on participants is provided in Volume I.
- **Section X.2: Community Profile:** Provides a profile of the jurisdiction, including population and socially vulnerably populations.
- **Section X.3: Jurisdictional Capability Assessment and Integration:** Provides an inventory and evaluation of the jurisdiction's tools, mechanisms, and resources available to support hazard mitigation and natural hazard risk reduction. Tables provide an inventory of the jurisdiction's planning, regulatory, administrative, technical, and fiscal capabilities, its level of participation in state and federal programs designed to promote and incentivize local risk reduction efforts, and its adaptive capacity to adjust to damage and respond to consequences.
- **Section X.4: National Flood Insurance Program (NFIP) Compliance:** Summarizes jurisdiction-specific information related to managing and regulating the regulatory floodplain, including current and future compliance with the NFIP.
- **Section X.5: Growth/Development Trends:** Summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development.
- **Section X.6: Jurisdictional Risk Assessment:** Provides information regarding each jurisdiction's vulnerability to the identified hazards. Full data and information on the hazards of concern, the methodology used to develop the vulnerability assessments, and the results of those assessments that serve as the basis of these local hazard rankings may be found in Volume I.
  - **Hazard Area:** Each annex includes a map (or series of maps) illustrating identified hazard zones and critical facilities. The maps also show areas of known or anticipated future development, as available.
  - **Hazard Event History:** Identifies hazard events that have caused significant impacts within the jurisdiction, including a summary characterization of those impacts identified by the jurisdiction.
  - **Hazard Ranking and Vulnerabilities:** Each jurisdiction has differing degrees of risk exposure and vulnerability. The local hazard ranking identifies each jurisdiction's local degree of risk to each hazard, supporting the selection and prioritization of actions to reduce the highest levels of risk for each community.
  - **Critical Facilities:** Identifies potential flood losses to critical facilities in the jurisdiction based on the flood vulnerability assessment process presented in Volume I.
  - **Identified Issues:** Presents other specific hazard vulnerabilities as identified by the jurisdiction.
- **Section X.7: Mitigation Strategy and Prioritization:** Discusses and provides the status of past mitigation actions and status and describes proposed hazard mitigation actions and prioritization.



- **Past Mitigation Action Status:** Where applicable, a review of progress on the jurisdiction's prior mitigation strategy is presented, identifying the disposition of each prior action in the jurisdiction's updated mitigation strategy. Other completed or ongoing mitigation activities that were not specifically part of a prior local mitigation strategy may be included in this subsection as well.
- **Completed Mitigation Actions Not Identified in the Previous Mitigation Strategy:** Other completed or ongoing mitigation activities that were not specifically part of a prior local mitigation strategy may be included in this subsection as well.
- **Proposed Hazard Mitigation Actions for the Plan Update:** Tables and action worksheets at the end of each annex present the jurisdiction's updated mitigation strategy, a summary of the local mitigation strategy prioritization and a summary of the action categories and hazards addressed.

Each jurisdiction's annex is a living document that will continue to be improved as resources permit. Continued efforts to maintain the annex will ensure that it remains current and will improve its effectiveness as the key tool, reference, and guiding document by which the jurisdiction will implement hazard mitigation locally.

## 1.5 COVERAGE UNDER THE PLAN

Of the 25 original planning partners, 25 fully met the participation requirements specified by the Steering Committee and have annexes included in this volume. Those that did not meet the requirements will not be able to seek FEMA or state approval at the time of plan submittal, nor will they be eligible to obtain FEMA grant funding. Table 1-1 lists the status of each jurisdiction. Note that participation in scheduled Planning Partnership meetings provides only a partial indication of the level of participation of each jurisdiction. Appendices in Volume I provide details on further participation and meeting attendance.

Table 1-1. Jurisdictional Status

	Letter of Intent to Participate	Attended Workshops, Meetings, and Calls	Provided Update on Past Projects	Submitted Mitigation Actions for Current Plan	Seeking Approval for Adoption (meets all previous requirements)
County of Sussex	N/A	X	X	X	X
Borough of Andover	X	X	X	X	X
Township of Andover	X	X	X	X	X
Borough of Branchville	X	X	X	X	X
Township of Byram	X	X	X	X	X
Township of Frankford	X	X	X	X	X
Borough of Franklin	X	X	X	X	X
Township of Fredon	X	X	X	X	X
Township of Green	X	X	X	X	X
Borough of Hamburg	X	X	X	X	X
Township of Hampton	X	X	X	X	X
Township of Hardyston	X	X	X	X	X
Borough of Hopatcong		X	X	X	X
Township of Lafayette	X	X	X	X	X



	Letter of Intent to Participate	Attended Workshops, Meetings, and Calls	Provided Update on Past Projects	Submitted Mitigation Actions for Current Plan	Seeking Approval for Adoption (meets all previous requirements)
Township of Montague	X	X	X	X	X
Town of Newton	X	X	X	X	X
Borough of Ogdensburg	X	X	X	X	X
Township of Sandyston	X	X	X	X	X
Township of Sparta	X	X	X	X	X
Borough of Stanhope		X	X	X	X
Township of Stillwater	X	X	X	X	X
Borough of Sussex	X	X	X	X	X
Township of Vernon	X	X	X	X	X
Township of Walpack	X	X	X	X	X
Township of Wantage	X	X	X	X	X





## 2. COUNTY OF SUSSEX

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the County of Sussex with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Sussex, describes who participated in the planning process, assesses Sussex's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 2.1 HAZARD MITIGATION PLANNING TEAM

The County of Sussex identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many County departments. The Deputy Emergency Management Coordinators represented the community on the Sussex County HMP Planning Partnership, and Steering Committee, and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 2-1 summarizes County officials who participated in the development of the annex and in what capacity. Additional documentation of the County's planning activities through Planning Partnership meetings is included in Volume I.

Table 2-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Eric Muller, Deputy Coordinator Address: 135 Morris Turnpike, Newton, New Jersey 07860 Phone Number: (973) 579-0380 x2536 Email: emuller@sussexcountysheriff.com	Name/Title: Steven Sugar, Deputy Coordinator Address: 135 Morris Turnpike, Newton, New Jersey 07860 Phone Number: (973) 579-0380 Email: ssugar@sussexcountysheriff.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Floodplain Administration is conducted at the municipal level.	
<b>Additional Contributors</b>	
Name/Title: Ashley Havens, Division of Public Works; Office of Roads Method of Participation: Provided key information for the completion of this annex.	
Name/Title: David Kunz, GIS Manager Method of Participation: Provided key information for the completion of this annex.	
Name/Title: Scott House, Director of Public Works Method of Participation: Provided key information for the completion of this annex.	
Name/Title: Bill Koppenaal, Division of Engineering Administrator Method of Participation: Provided key information for the completion of this annex. Reviewed previous actions.	
Name/Title: Tom Drabic, Planning and Economic Development Method of Participation: Provided key information for the completion of this annex.	
Name/Title: James Aumick, Deputy Coordinator Method of Participation: Provided key information for the completion of this annex.	
Name/Title: Michael Strada, Sheriff Method of Participation: Provided key information for the completion of this annex.	



Primary Point of Contact	Alternate Point of Contact
Name/Title: Nickolas Kapetanakis, Community and Youth Services Director Method of Participation: Provided key information for the completion of this annex.	
Name/Title: Ron Tappan, County Administrator Method of Participation: Provided key information for the completion of this annex.	
Name/Title: Autumn Sylvester, Planning and Economic Development Method of Participation: Provided key information for the completion of this annex. Reviewed previous actions.	

## 2.2 COMMUNITY PROFILE

Sussex County is the northern-most county in the State of New Jersey. It is bordered to the north by New York State, to the south by Warren and Morris Counties, to the east by Passaic County and to the west by the Delaware River and the Commonwealth of Pennsylvania. The County is made up of 24 jurisdictions that span approximately 536 square miles. There is a total of 1,417 miles of roads, 24 municipalities, and 536 square miles of land (NJDOT 2022). Historically, Sussex County has been a scenic, rural county with small municipalities, plenty of open space, and agriculture. According to the U.S. Census, the 2020 population for Sussex was 144,221, a 3.3-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 4.5-percent of the population is 5 years of age or younger, 17.6-percent is 65 years of age or older, 1.3-percent is non-English speaking, 5.1-percent is below the poverty threshold, and 10.9-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the County of Sussex, 25-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 2.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Sussex performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs



- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Sussex to identify opportunities for integrating mitigation concepts into ongoing County procedures.

### 2.3.1 Planning and Regulatory Capability and Integration

Table 2-2 summarizes the planning and regulatory tools that are available to Sussex.

Table 2-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
All codes, ordinances, and regulations are administered at the municipal level.				
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	Sussex County Strategic Growth Plan, 2014	County	Division of Planning
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Strategic Growth Plan recommends strategies to reduce or reverse the loss of population and economic base that the County has been experiencing in recent years. In order for the Strategic Growth Plan to lead to improved economic stability, the information and recommendations found in this Plan should be considered by both private and public county stakeholders, in a partnership with the business community and non-profit organizations. The cooperation of state and regional agencies is also essential. The recommendations in this Update are based on six focus areas and informed by six Topic Reports that were selected by Sussex County. The Plan of Action lists recommendations for tourism, transportation, economic development, housing, reducing the regulatory burden, and agricultural development.</i>				
<b>Capital Improvement Plan</b>	Yes	Annual Capital Project Requests	County	All Departments
How has or will this be integrated with the HMP and how does this reduce risk? <i>County entities will submit desired capital projects to County Finance with project titles, descriptions, and anticipated costs. The submitted projects may include those with relevance to hazard mitigation, including stormwater management or making facilities more sustainable.</i>				
<b>Disaster Debris Management Plan</b>	Yes	Disaster Debris Management Plan	County	Division of Public Works
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Disaster Debris Management Plan establishes procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The County's plan identifies two county-owned locations for debris collection.</i>				
<b>Floodplain Management or Watershed Plan</b>	Yes	Groundwater Manual, 1980	County	Division of Planning
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Groundwater Manual places a high priority on the protection and management of groundwater, especially existing and potential high yielding aquifers, since over 90% of area residents rely on groundwater for supplies. This manual is intended to:</i> <ul style="list-style-type: none"> <li>• Identify critical areas in need of management and protection</li> <li>• Identify the existing and potential problems which are specific to the planning area</li> <li>• Offer municipal decision makers and professional staff a regional groundwater management strategy</li> </ul>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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- Outline practices which can be incorporated into municipal water plans and ordinances for managing groundwater
- Design a framework for implementing groundwater management at the municipal level

<b>Stormwater Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Stormwater Pollution Prevention Plan</b>	Yes	Highway Agency Stormwater Pollution Prevention Plan, 2024	County	Division of Public Works
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Stormwater Pollution Prevention Plan (SWPPP) is a site-specific, written document developed to identify potential sources of stormwater pollution. The SWPPP outlines the Best Management Practices (BMPs) employed to reduce pollutants in stormwater discharges from various sites. The SWPPP is used to identify all potential pollution sources that could come into contact with stormwater leaving a site, and includes the following elements:*

- Descriptions of activities that could cause pollution
- Best Management Practices & control measures for preventing pollution
- Procedures for conducting inspections and monitoring
- Plans for keeping the SWPPP up to date

<b>Open Space Plan</b>	Yes	Open Space and Recreation Plan, 2016	County	Division of Planning, Open Space Committee
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How has or will this be integrated with the HMP and how does this reduce risk?

*Preservation of open space must be planned just as any municipal or county infrastructure. The following goals and policies guide the recommendations of the Open Space and Recreation Plan Update:*

- Protect the quantity and quality of water resources
- Secure protection of rivers, lakes, and streams
- Connect land for regional greenways and trail development
- Shape growth and maintain rural character of a community
- Safeguard threatened and endangered species habitat
- Add to publicly owned land
- Preserve scenic vistas
- Offer opportunities for resource-based ("passive") recreation
- Provide opportunities for facility-based ("active") recreation
- Engage in land stewardship activities
- Promote tourism activities
- Enhance land and sites with historic values

<b>Urban Water Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Habitat Conservation Plan</b>	Yes	Highlands Regional Master Plan, 2008	State, Federal	Highlands Council
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Regional Master Plan evaluates how best to protect the natural and cultural resources of the Highlands Region while striving to accommodate a sustainable economy. The Plan establishes the capacity limitations for future growth within the Highlands Region related to both natural systems, such as protection of our drinking water supplies, and the built environment, such as wastewater and transportation infrastructure. The Plan evaluates the costs, and often unintentional consequences, of local land use planning decisions, assesses the environmental and economic benefits of natural resource and open space protection, particularly as they relate to water supply, and further develops the tools and methods necessary to institute growth control measures, where necessary, to safeguard critical natural resources.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Economic Development Plan</b>	Yes	Target Business and Industry Analysis, 2007	County	Vision2020 Economic Strategy Committee
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>This analysis has three inter-related objectives that will lead to the creation of a strategy intended to develop a sustainable business and industrial base that will provide good, family sustaining jobs for County residents, increase the County's tax base without sacrificing the County's quality of life and natural resources, and broaden the County's economic base. In broad terms these objectives are to:</i></p> <ul style="list-style-type: none"> <li>• <i>Identify and target economic sectors with the greatest economic, growth, and public benefit potential</i></li> <li>• <i>Enhance intergovernmental planning and coordination to promote the desired growth</i></li> <li>• <i>Identify ways to streamline the local regulatory processes to promote obtaining economic development objectives.</i></li> </ul>				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	Yes	Community Forest Management Plan, 2003	County	Shade Tree Commission
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The objectives in this five-year plan address street trees, park trees, and trees on other public grounds. Future plans will build on the successes of this plan and follow up on goals not attained during this planning period. The objectives and timeline for completion outlined in this plan are dependent on the availability of funding and will be altered from time-to-time to ensure there is no negative impact on the day-to-day operations of the County.</i></p>				
<b>Transportation Plan</b>	Yes	Sussex County Ten-Year Mobility Study, 2006	County	Division of Planning
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The goal of the study is to develop strategies to address transportation needs in the coming decade. The study identifies challenges and issues that have both resulted from the study process and represent challenges that will be faced during the implementation period for the plan; presents the study steps and the key findings that have resulted from the overall process; and presents the recommended steps that should be taken by Sussex County and its associated partners to address current and emerging transportation needs over the next 10 years.</i></p>				
<b>Agriculture Plan</b>	Yes	Comprehensive Farmland Preservation Plan, 2008	County	Agriculture Development Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Since the program's inception in 1983, the Sussex County Agriculture Development Board has preserved 9,468 acres of farmland with another 2,894 acres pending in 2007. At the end of 2007, the Board will have preserved a total of 12,362 acres of farmland in Sussex County. Sussex County realizes the importance of preserving its farmers as well its farmland. In cooperation with local schools, organizations, and research institutions, the County has undertaken a number of initiatives that help to promote the economic well-being of local farmers.</i></p>				
<b>Climate Action/Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	Yes	Sussex County Strategic Growth Plan – Tourism Element, 2014	County	Division of Planning
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*Sussex County has the potential to leverage its natural assets to increase tourism and to have a positive impact on the economy. State, county, municipal, and private businesses offer a variety of different types of tourism activities including ecotourism/outdoor recreation, agritourism, arts and culture and other activities. This Strategic Growth Plan recommends conducting a limited study to identify how the County could take a more active role in promoting tourism and helping grow and expand the industry.*

<b>Business/ Downtown Development Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other: Complete Streets Study</b>	Yes	Sussex County Complete Streets Policy and Implementation Plan, 2014	County, State	Division of Planning, New Jersey Transportation Planning Authority
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How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of the Sussex County Complete Streets Policy and Implementation Plan is to better accommodate the travel needs and desires of motorists, pedestrians, bicyclists, transit riders, seniors, children, and individuals with disabilities. The Plan recommends consideration of context-sensitive roadway design improvements that provide safe access for all users by designing and operating a comprehensive, integrated, and connected multimodal network (streets, sidewalks, and trails) of transportation options within the County. In addition, the Plan includes specific Complete Streets recommendations for targeted Pilot Locations.*

<b>Other: Natural Resources Inventory</b>	Yes	Natural Resources Inventory, 2009	County	Division of Planning
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Natural Resources Inventory provides a stand-alone discussion of natural resource issues that affect development, conservation, and the economic vitality of Sussex County.*

<b>Other: Wastewater Management Plan</b>	Yes	Sussex County Wastewater Management Plan, 2017	County	Water Quality Advisory Committee
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How has or will this be integrated with the HMP and how does this reduce risk?

*This planning document provides a comprehensive plan for wastewater management for the 24 municipalities served by the County. Wastewater Management Planning is part of the continuing planning process required by the New Jersey Water Quality Planning Act (N.J.S.A. 58:11A-1 et seq.) and Section 208 of the federal Clean Water Act. The intent of the continuing planning process is to align federal, State, regional and local land use planning to ensure that these land use plans do not conflict with each other.*

<b>Other: Solid Waste Management Plan</b>	Yes	Solid Waste Management Plan, 2013	County	Division of Planning
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How has or will this be integrated with the HMP and how does this reduce risk?

*The plan provides an emphasis on public and private sector generators of solid waste to be active in source separation of marketable waste materials and reusable waste materials for return to the economic mainstream. The County is desirous of maximizing the diversion of the materials out of the solid waste stream into a recycling program. The purposes of this Solid Waste Management Plan are, on a County-wide basis, to standardize and to:*

- Codify existing County policy and procedures to enable the County to efficiently enforce and effectively administer the Plan as it exists and as it may be amended from time to time.*
- Establish minimum standards of performance for residential and non-residential generators of solid waste and recyclable materials.*
- Aid in the conservation and recovery of valuable resources.*
- Establish standardized responsibilities for residential generators of solid waste throughout the County.*
- Establish standardized responsibilities for non-residential generators of solid waste throughout the County.*
- Establish standardized performance responsibilities for all County Municipal Recycling Coordinators.*
- Establish standardized performance responsibilities for the County Recycling Coordinator.*
- Provide mechanisms for the enforcement of the provisions of this Plan and provide for penalties for those who are found to be non-compliant with any provision of the Plan, and to fix fees for compliance monitoring.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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- Remove a maximum amount of recyclable material from the County solid waste stream.

**RESPONSE/RECOVERY PLANNING**

<b>Emergency Operations Plan</b>	Yes	Sussex County Emergency Operations Plan, 2023	County	Emergency Management
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Emergency Operations Plan defines the scope of preparedness and emergency management activities necessary in the County. This document assigns responsibility to organizations and individuals for carrying out specific actions that exceed routine responsibility at projected times and places during an emergency; sets lines of authority and organizational relationships and shows how all actions will be coordinated; identifies how people and property are protected; and identifies personnel, equipment, facilities, supplies, and other resources available within the jurisdiction or by agreement with other jurisdictions.*

<b>Continuity of Operations Plan</b>	Yes	Continuity of Operations Plan, 2020	County	Emergency Management
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Continuity of Operations Plan (COOP) is a policy and guidance document that ensures that essential functions for an agency or organization are continued in the event of an emergency. The COOP addresses emergencies from an all-hazards approach, including natural, manmade, or technological disasters*

<b>Substantial Damage Response Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Threat and Hazard Identification and Risk Assessment</b>	Yes	Sussex County THIRA	County, State	Emergency Management, NJ OHS&P
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Threat and Hazard Identification and Risk Assessment (THIRA) is a three-step risk assessment process that helps the County understand its risks to natural, technological, and human-caused hazards and what must be done to address those risks. The County works with the New Jersey Office of Homeland Security (NJ OHS&P) to complete its THIRA.*

<b>Post-Disaster Recovery Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Public Health Plan</b>	Yes	Sussex County Community Health Improvement Plan, 2022	County	North Jersey Health Collaborative
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Community Health Improvement Plan (CHIP) is designed to set priorities and coordinate resources to improve community health in Sussex County. Using data from the 2021 Community Health Needs Assessments, chronic disease, mental health and substance abuse, healthy aging, and maternal child health were identified as priority areas for intervention. This document outlines the priority areas for public health intervention, as well as the community health partners' activities that improve these priority areas.*

<b>Other: Traffic Diversion Plan</b>	Yes	Traffic Diversion Plans (years may vary)	County, Local	Division of Public Works, Local Highway Departments
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How has or will this be integrated with the HMP and how does this reduce risk?

*Traffic Diversion Plans (TDP) are sets of documents that detail the processes to be followed to divert traffic from specific areas of the County. The plans may vary on type of diversion technique and the purpose, factors used to decide diversion locations, and specific regulations or policies to the area.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Other: Communications Plan</b>	Yes	Communications Plan	County, Local	Emergency Management

How has or will this be integrated with the HMP and how does this reduce risk?

*The Communications Plan is a strategic, step-by-step process that specifies when, how, and with whom to communicate with when an emergency occurs. This plan covers different communication channels and who is in charge of sending messages. The plan is broad enough to apply to most emergency situations but specific enough for everyone to follow. The plan includes items such as contact information for employees, stakeholders, and partnering agencies; notification methods; media contacts; and message prompts.*

## 2.3.2 Development and Permitting Capability

Table 2-3 summarizes the capabilities of Sussex to oversee and track development.

Table 2-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	No	Development permits are issued at the local municipal level.
Are permits tracked by hazard area? (For example, floodplain development permits.)	N/A	Development permits are issued at the local municipal level.
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	Yes	There is a buildable land inventory however, it is in need of update; the inventory was last updated over 10 years ago.
Describe the level of buildout in your jurisdiction.	N/A	The County is fairly built out. The County is located in the Highlands area of New Jersey – consisting of approximately 129,749 acres of land; 70,769 acres in the Preservation Area and 58,980 acres in the Planning Area of the Highlands Region. For more information on buildout, please refer to the jurisdictional annexes in Chapter 3 through Chapter 26.

## 2.3.3 Administrative and Technical Capability

Table 2-4 summarizes potential staff and personnel resources available to Sussex and their current responsibilities that contribute to hazard mitigation.

Table 2-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Planning Board	Yes	<p>The Sussex County Planning Board (SCPB) is responsible for review or approval of site plan and subdivision applications and implementing the Sussex County Land Development Standards. The Development Review Committee of the SCPB is appointed to meet every two weeks for this purpose. The Sussex County Planning Board is also responsible for the adoption of a County Master Plan.</p> <p>Board membership is composed of nine members: six citizen members (with two alternates) appointed by the Board of County Commissioners, the Director, and another Commissioner (with one Commissioner alternate), and the County Engineer (with an alternate).</p>
Zoning Board of Adjustment	No	-
Planning Department	Yes	The Division of Planning and Economic Development is responsible for providing staff and technical assistance to the County Planning Board, Agricultural Development Board, Solid Waste Advisory Committee, 208 Water Quality Policy Advisory Committee, Strategic Growth Advisory Committee and Board of County Commissioners on all matters related to land use, development, and conservation.
Mitigation Planning Committee	Yes	Sussex County Pre-Disaster Mitigation Steering Committee (alternately, Working Group)
Environmental Board/Commission	Yes	Water Quality Policy Advisory Committee, Solid Waste Advisory Committee, Department of Environmental and Health Services
Open Space Board/Committee	Yes	The Sussex County Open Space Committee consists of seven voting members who are appointed by the County Commissioners. The members are drawn from the following constituencies: Sussex County Planning Board, the business, eco-tourism, environmental, leisure, municipal and/or recreational communities of the County. The Committee oversees the use of Open Space Trust Fund dollars to acquire lands and wetlands for the protection of environmentally sensitive areas; for the preservation of scenic, cultural or historically valuable areas; and for public outdoor recreation areas.
Economic Development Commission/Committee	Yes	Sussex County Economic Development Partnership (SCEDP) creates sustainable economic opportunities and prosperity to improve the quality of life in Sussex County.
Public Works/Highway Department	Yes	The Sussex County Division of Public Works is responsible for the proper maintenance, surfacing, resurfacing, drainage and repair of all County roads, bridges, and drains. The Office of Roads maintains all County roads, bridges, and drains and keeps them in a clear and safe condition. The Division is also in charge of removing all snow, ice, leaves, debris, or other matter that may impede or restrict travel within the County.



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		The Division investigates complaints involving County roads and bridges and then takes proper action to see that the needed repairs are made with a minimum of delay.
Construction/Building/Code Enforcement Department	No	-
Emergency Management/Public Safety Department	Yes	<p>The Division of Emergency Management is a county-level emergency service required by statute that coordinates all available resources to serve the needs of Sussex County during times of emergency events and disasters.</p> <p>In carrying out its responsibilities, the division oversees the emergency management activities of all county agencies and Sussex County's twenty-four municipalities. Each municipality has an emergency management coordinator with whom this division interacts and the coordinators, in turn, interact at the local level with police, fire, EMS, public works, public health, schools, etc.</p>
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Sussex County DPW installs snow fencing; annually cleans storm drains and inspects storm drains pre- and post-storm events
Mutual aid agreements	Yes	<p>Intra-County Agreements</p> <p>County Fire Box Alarms</p> <p>Norwest Region (Hunterdon, Somerset, Sussex, Warren)</p> <p>Statewide HazMat</p> <p>County to municipality agreements (MOUs)</p>
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	There is a Human Resources Manual, however there are no job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk.
Other: Solid Waste Advisory Council	Yes	The Sussex County Solid Waste Advisory Council (SWAC) is responsible for advising the Sussex County Board of County Commissioners on issues related to solid waste and recycling within Sussex County. The SWAC also reviews any proposed amendments to the County Solid Waste Management Plan. SWAC membership is composed of a representative from each municipality (appointed by the municipality) and seven at-large members (appointed by the Board of County Commissioners). Ex-officio members include representatives from County Planning and Health offices and Sussex County Municipal Utilities Authority.
Other: Water Quality Advisory Committee	Yes	The Sussex County Water Quality Management Plan Policy Advisory Committee (PAC) is an advisory committee to the Sussex County Board of County Commissioners under the Federal Clean Water Act. The PAC reviews amendments to the Sussex County Wastewater Management Plan that involve sewer service areas and wastewater facilities. Its membership consists of a representative from each municipality, and up to seven at-large members, appointed by the Sussex County Board of County Commissioners.

**TECHNICAL/STAFFING CAPABILITY**





Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Planners or engineers with knowledge of land development and land management practices	Yes	Planning Division, Engineering
Engineers or professionals trained in building or infrastructure construction practices	Yes	Division of Public Works—Office of Roads, Engineering
Planners or engineers with an understanding of natural hazards	Yes	Department of Engineering and Planning
Staff with expertise or training in benefit/cost analysis	Yes	Sussex County Department of Finance
Professionals trained in conducting damage assessments	No	The County does not have individuals trained in how to conduct damage assessment; however, there are individuals in Emergency Management who are able to collect and process the information collected from a damage assessment.
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Office of GIS Management
Staff that work with socially vulnerable populations or underserved communities	Yes	Sussex County and partnering agencies offer assistance to socially vulnerable populations and underserved communities. For more information, please go to ( <a href="https://www.sussex.nj.us/cn/webpage.cfm?tpid=16564">https://www.sussex.nj.us/cn/webpage.cfm?tpid=16564</a> )
Environmental scientists familiar with natural hazards	No	Use outside consultant where necessary
Surveyors	Yes	Department of Engineering and Planning – Division of Engineering
Emergency manager	Yes	Sherriff's Office—Office of Emergency Management
Grant writers	Yes	Planning Division
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 2.3.4 Fiscal Capability

Table 2-5 summarizes financial resources available to Sussex.

Table 2-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	No



Financial Resources	Accessible or Eligible to Use? (Yes/No)
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 2.3.5 Education and Outreach Capability

Table 2-6 summarizes the education and outreach resources available to Sussex.

Table 2-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	County Administrator is PIO. OEM has an incident management team and there is a PIO for the Sheriff's Office
Personnel skilled or trained in website development	Yes	outside web master can be utilized for major changes as well.
Hazard mitigation information available on your website	Yes	County of Sussex webpage posts Pre-Disaster Mitigation Information as well as the current and prior HMP and contact information
Social media for hazard mitigation education and outreach	Yes	The County and many of its departments, offices, and divisions maintain Facebook pages.
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	The County currently utilizes Swift911 but will be switching to Regroup.
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Sussex County and partnering agencies offer assistance to socially vulnerable populations and underserved communities. For more information, please go to <a href="https://www.sussex.nj.us/cn/webpage.cfm?tpid=16564">https://www.sussex.nj.us/cn/webpage.cfm?tpid=16564</a>
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	CERT teams discuss preparedness

### 2.3.6 Community Classifications

Table 2-7 summarizes classifications for community programs available to Sussex.



Table 2-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 2.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 2-8 summarizes the adaptive capacity for each identified hazard of concern and the County’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 2-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate



## 2.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 2-1 is responsible for maintaining this information.

### 2.4.1 NFIP Statistics

Table 2-9 summarizes the NFIP policy and claim statistics for Sussex.

Table 2-9. Sussex NFIP Summary of Policy and Claim Statistics

# Policies	168
# Claims (Losses)	174
Total Loss Payments	\$1,722,232.10
# Repetitive Loss Properties (NFIP definition)	15
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

*Source: FEMA Region 2 2024*

### 2.4.2 Flood Vulnerability Summary

Table 2-10 provides a summary of the NFIP program in Sussex.

Table 2-10. NFIP Summary

NFIP Topic	Comments
Floodplain Administration is conducted at the municipal level.	

## 2.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 2-11 through Table 2-13.



Table 2-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits				
Permits within SFHA				
<b>2020</b>				
Total Permits				
Permits within SFHA				
<b>2021</b>				
Total Permits	Permitting is carried out at the municipal level.			
Permits within SFHA				
<b>2022</b>				
Total Permits				
Permits within SFHA				
<b>2023</b>				
Total Permits				
Permits within SFHA				

SFHA = Special Flood Hazard Area (1% flood event)

Table 2-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
The County indicated there has not been any recent major development or infrastructure from 2019 to present.					

Table 2-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
The County indicated there is no known or anticipated major development or infrastructure in the next five (5) years.					

## 2.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Sussex's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.





## 2.6.1 Hazard Area

The hazard profiles in Volume 1, Chapter 6 through Chapter 18 provide detailed information regarding each plan participant's vulnerability to the identified hazards. Chapter 4 (Methodology) and Chapter 19 (Hazard Ranking) provide detailed summaries for the County of Sussex's risk assessment results and data used to determine the hazard ranking discussed later in this section.

Hazard area extent and location maps provided in the municipal annexes illustrate the probable areas impacted within the jurisdiction based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps were generated only for those hazards that can be identified clearly using mapping techniques and technologies and for which the County of Sussex has significant exposure. The maps also show the location of potential new development, where available.

## 2.6.2 Hazard Event History

The history of natural and non-natural hazard events in Sussex is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 2-14 provides details on loss and damage in Sussex during hazard events since the last hazard mitigation plan update.

Table 2-14. Hazard Event History in Sussex

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Sussex
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The County implemented masking and social distancing mandates. Non-emergent personnel were permitted to work from home.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Downed trees and power lines were in abundance throughout the County. Public Works officials assisted in the clean-up on County maintained roadways and properties.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Heavy snowfall and high snow accumulations impacted the entire County. No damages or losses occurred to County property. Public Works officials assisted in the clean-up on County maintained roadways and properties.



Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Sussex
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Flash flooding occurred in areas of the County, which resulted in several road closures. Public Works officials assisted in the clean-up on County maintained roadways and properties. First responders closed off road roadways.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 2.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Sussex .

### Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Sussex reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the County indicated the hazard rankings assessed were accurate.

Table 2-15 shows Sussex's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 2-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Low
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low



Hazard	Rank
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 2-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 2-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Sussex County does not have any facilities located within the 1 percent or 0.2 percent annual chance floodplains.					

*Source: NJGIN 2023; Sussex County 2021, 2023; FEMA 2014*

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Sussex County. Mitigation actions addressing the high hazard dams are listed in the appropriate jurisdictional annex:

- Clove River Dam (*Sussex Borough*)
- Reservoir Lake Dam (*Byram Township*)
- West Shore Trail Dam (*Sparta Township*)
- Diversion Dam (*Hardyston Township*)
- Cranberry Lake Dam (*Byram Township*)
- Lake Panorama Dike (*Vernon Township*)
- Great Gorge Dam (*Vernon Township*)
- Heaters Pond Dam (*Ogdensburg Borough*)
- Willow Crest Dam (*Stillwater Township*)
- Lake Rutherford Dam (*Wantage Township*)
- Crandon Lake Dam (*Hampton Township*)
- Lake Tranquility Dam (*Green Township*)
- East Cove Dam (*Vernon Township*)
- Wawayanda Lake Dam (*Vernon Township*)
- Mountain Creek Lake Dam (*Vernon Township*)



- Morris Lake Dam (*Sparta Township*)
- Upper West Highland Lake Dam (*Vernon Township*)
- Lake Mohawk Dam (*Sparta Township*)
- Glen Lake Dam (*Sparta Township*)
- Highland Lakes Dam (*Vernon Township*)
- Lake Gerard Dam (*Franklin Borough*)
- Lake Gerard Dam A (*Franklin Borough*)
- Lake Gerard Dike C (*Franklin Borough*)
- Upper Highland Lake Dam (*Vernon Township*)
- Hidden Valley Lake Dam (*Vernon Township*)
- Lake Gerard Dike B (*Franklin Borough*)
- Upper Mohawk Lake Dam (*Sparta Township*)
- Kemah Lake Dam (*Hampton Township*)
- Forest Lake Dam (*Andover Township*)
- Frenches Pond Dam (*Byram Township*)
- Paulins Kill Site 4 Dam (*Town of Newton*)
- Lake Tamarack Dam (*Hardyston Township*)
- Robert Rooke Dam (*Sandyston Township*)
- Steenykill Lake Dam (*Montague Township*)
- Canistear Reservoir #2 Dam (*Vernon Township*)
- Canistear Reservoir #1 Dam (*Hardyston Township*)
- Stump Pond Dam (*Vernon Township*)
- Pleasant Valley Lake Dam (*Vernon Township*)
- Lake Lenape Dam (*Andover Township*)
- Paulinskill Water Shed #2 Dam (*Sussex Borough*)

### 2.6.4 Identified Issues

After review of Sussex's hazard event history, hazard rankings, hazard location, and current capabilities, Sussex identified the following vulnerabilities within the community:

- Jurisdictions in the County participate in the National Floodplain Insurance Program, which is implemented by Floodplain Administrators in each jurisdiction. Floodplain Administrators in the County's jurisdictions have changed in recent years. There is not a list being maintained regularly to update the contact information for each jurisdictional Floodplain Administrator. New Jersey Department of Environmental Protection is not able to update their Floodplain Administrator list without information from County and Local level government.
- Jurisdictional Floodplain Administrators may change as often as annually. Floodplain Administrators may be unaware of the responsibilities associated within administering the National Flood Insurance Program (NFIP) and its requirements within their jurisdiction. The proper administration of the NFIP assists property



owners with receiving flood insurance, which allows the property owners to recover faster when flood waters recede and assists in the overall reduction of flood risk by implementing floodplain management regulations.

- Sussex County has identified the Fredon Civic Center, located at 436 State Route 94 S, as an eligible sheltering location; however, the site does not have the power to produce the required wattage needed to support sheltering activities. Based on the population of the County, additional sheltering locations are needed to meet the County's sheltering needs, making it crucial to provide additional electrical power to the Fredon Civic Center. Sheltering facilities are critical to support the constituents in the County when an emergency is occurring, such as a large-scale power outage, strong hurricane, or flooding conditions.
- The Department of Public Works (DPW) is responsible for much work in County areas to conduct tree trimming and emergency tree removal. Falling trees, tree limbs, and tree branches can impact utility lines during severe weather, hurricanes, nor'easters, and severe winter weather, causing power outages in portions, or throughout, the County. The DPW lacks a 70-foot tree truck and a stump grinder which would assist in the removal of trees identified to be a potential hazard.
- The Department of Public Works (DPW) building does not have a roof that meets current standards for snow load. Failure of the roof could lead to a reduction in critical services by DPW before, during, and after hazard events and increase the risk of roof collapse, endangering those inside the building.
- Sussex County is a densely forested County, with over half of its land cover being identified as forested land. Although many forested areas of the County is within State preserved land, the forested locations abut to residential communities. The public may not be aware, or educated, on how to prepare for a wildfire and what is at risk.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The County has 13 NFIP repetitive loss properties, 1 FMA repetitive loss property, and 1 NFIP severe repetitive loss property, but other properties may be impacted by flooding as well.
- The Farmland Preservation Plan was last updated in 2008. A new update is needed which would incorporate more information on hazard mitigation. This plan works to preserve farmland in the County through the identification of various initiatives to promote the economic well-being of local farmers.
- The County's Land Development Standards have not been updated since 2008. The purpose of these standards are to provide rules, regulations, and standards for site plans and subdivisions and procedures for review of site plans and subdivisions within the County's jurisdiction to allow land development that is compatible and harmonious with the existing, planned, and contemplated infrastructure base of the County and to protect the public health, safety, and welfare; communicate the process of development review to applicants and municipalities; promote Villages and Centers with a pedestrian realm as a preferred land development type in order to implement the Sussex County Strategic Growth Plan; and internalize external costs.
- The Ten-Year Mobility Study is due for update. The goal of the study is to develop strategies to address transportation needs in the coming decade. The study identifies challenges and issues that have both resulted from the study process and represent challenges that will be faced during the implementation period for the plan; presents the study steps and the key findings that have resulted from the overall process; and presents the recommended steps that should be taken by Sussex County and its associated partners to address current and emerging transportation needs over the next 10 years.
- The County Wastewater Management Plan is currently in draft form and requires adoption. Adoption of this plan continues the County's efforts of maximizing the diversion of the materials out of the solid waste stream into a recycling program.



- The Health Department requires increased technological capabilities to track disease outbreak events, notify the public of important updates, share information between departments, and allow for registration for testing, treatment, and vaccination.
- Backup power sources are necessary to maintain critical services for critical facilities. Backup power sources ensure continuity of operations when a power outage occurs from a hazard, such as hurricanes, nor'easters, severe weather, or severe winter weather. Backup power sources also ensure daily operations can occur during all hazard events. The Office of Bridges and Traffic lacks a backup power source.
- County facilities should be protected from hazards to maintain continuity of operations. Numerous facilities are aging and were built to standards that are lower than modern building requirements, making these facilities vulnerable to the various hazards which impact the County.
- The Frankford Wastewater Treatment facility requires upgrade of the force main to prevent spills of sewage. External spills of sewage can negatively impact habitats of nearby species, as well as seepage into the ground, potentially impacting groundwater and nearby waterbodies. Internal spills of sewage can lead to mold growth and unpleasant odors, impacting human health.
- There are 40 high hazard dams in the County within 15 of its jurisdictions, and several more in the surrounding Counties of Passaic, Morris, Warren (New Jersey), Orange (New York), and Pike (Pennsylvania). High hazard dams have the potential to severely impact those within inundation areas. Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event.
- Localities have not included hazard mitigation practices into their planning and zoning initiatives. Integrating mitigation into building and zoning protects existing infrastructure and guides the safe development of new construction.
- Several dams in Sussex County have received poor or unsatisfactory safety ratings on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.
- Sussex County does not have digitized dam failure inundation area data for any of the dams in the County. Dam failure inundation area data is crucial for effective planning purposes. The inundation data will be able to show the locations most likely to be impacted by a dam failure event. This data can assist first responders and dam owners define safety and response procedures.

\* This issue was identified as a specific area of concern based on resident response to the Sussex County Hazard Mitigation Citizen survey.

## 2.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 2.7.1 Past Mitigation Action Status

Table 2-17 indicates progress on the County's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.





## 2.7.2 Additional Mitigation Efforts

Sussex County did not identify any additional mitigation efforts completed since the last HMP.



Table 2-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Sussex County-001	Sheltering	All Hazards	SCDEM	<p>Problem: Additional sheltering locations are needed to meet the County's sheltering needs.</p> <p>Solution: The County will be working to establish new shelters at the Sussex County Fair Grounds (capacity of 200) and the Fredon Civic Center (capacity of 90). Shelters will be designed to meet FEMA standards and include backup power.</p>	<p>1. In Progress</p> <p>2. Viable shelter at Civic Center, but facility would need generator at location. The County Fair Grounds was established as a shelter.</p>	<p>1. Include in update</p> <p>2. Revise to Civic Center is eligible to be a sheltering location but would need a stand-by generator with transfer switch and necessary electrical components.</p> <p>3. Not applicable</p>
2021-Sussex County-002	Warming and Cooling Centers	Severe Weather, Severe Winter Weather	SCDEM	<p>Problem: Warming centers need to be established in new locations to expand offerings of warming and cooling centers and maintain access for at risk communities.</p> <p>Solution: The County will expand the number of warming and cooling centers to service the County population.</p>	<p>1. Completed</p> <p>2. The County expanded availability of warming and cooling centers to include its County libraries.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Action completed</p>
2021-Sussex County-003	Increase Vegetation Management Capabilities	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter	DPW	<p>Problem: DPW is responsible for much work in County areas to conduct tree trimming and emergency tree removal. The DPW lacks a 70-foot tree truck and a stump grinder.</p> <p>Solution: The County will purchase a 70-foot tree truck and a stump grinder.</p>	<p>1. No Progress</p> <p>2. The purchase of this equipment is no longer a priority for the County for the continuation of its vegetation maintenance program.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. The purchase of this equipment is no longer a priority for the County for the continuation of its vegetation maintenance program.</p>
2021-Sussex County-004	DPW Snow Load Retrofit	Severe Winter Weather, Nor'easter	Facilities	<p>Problem: The Department of Public Works building does not have a roof that meets current standards for snow load. Failure of the roof could lead to a reduction in critical services by DPW before, during, and after hazard events.</p>	<p>1. No Progress</p> <p>2. Due to financial constraints and lack of funding sources, this action has not been completed.</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				Solution: The County Facilities Department will retrofit the roof to meet current standards for snow load on the County Department of Public Works building located on Route 206.		
2021-Sussex County-005	FEMA HMA Informational Workshops	All Hazards	SCDEM, Engineering	<p>Problem: With the advent of new information on how to apply for hazard mitigation funding support and new programs for funding support, additional education is needed for County staff and municipal staff on FEMA HMA grant programs.</p> <p>Solution: The County will expand offerings and incorporate information on BRIC at an annual workshop related to the FEMA HMA grant programs (HMGP, BRIC, FMA). This may be done at quarterly OEM coordinator meetings and invite other County departments.</p>	<p>1. Ongoing Capability</p> <p>2. Information on FEMA HMA grant programs and opportunities is regularly discussed with jurisdictions at quarterly coordinator meetings and during intra-departmental meetings.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Information on FEMA HMA grant programs and opportunities is regularly discussed with jurisdictions at quarterly coordinator meetings and during intra-departmental meetings.</p>
2021-Sussex County-006	Wildfire Outreach	Wildfire	SCDEM	<p>Problem: Wildfire preparedness by the public is lacking.</p> <p>Solution: Coordinate a yearly program for public information on wildfire with NJ Forest Fire Service (Division A Liaison); and post this information on the County website regarding the wildfire hazard (including current information about fuel loads and conditions that may affect potential for fires).</p>	<p>1. In Progress</p> <p>2. The Division A liaison with the NJ Forest Fire Service performs training as available with County entities and individuals. The County is currently working with the Division A liaison to provide public information updates via the County website.</p>	<p>1. Include in update</p> <p>2. Remove yearly program portion from action and restrict action to website development for public information on the wildfire hazard.</p> <p>3. Not applicable</p>
2021-Sussex County-007	Repetitive Loss Mitigation Support	Flood, Severe Weather	SCDEM, local NFIP Floodplain Administrator, supported by homeowners	<p>Problem: Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The County has 16 repetitive loss properties, but other properties may be impacted by flooding as well.</p>	<p>1. In Progress</p> <p>2. The County has been working with local jurisdictions to identify homeowners who would be interested in elevation, flood-proofing, or acquisition or their property. To date, no homeowners have been interested.</p>	<p>1. Include in update</p> <p>2. Revise to represent current amount of repetitive loss properties in the County.</p> <p>3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<p>Solution: Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or acquisition/relocation to protect them from future damage; repetitive loss and severe repetitive loss properties should be a priority, when applicable.</p> <p>Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option.</p> <p>Phase 2: Work with the property owners to implement selected action based on available funding from FEMA and local match availability.</p>		
2021-Sussex County-008	Update Farmland Preservation Plan	All Hazards	Department of Engineering and Planning	<p>Problem: The Farmland Preservation Plan was last updated in 2008. A new update is needed which would incorporate more information on hazard mitigation.</p> <p>Solution: The County will update the Farmland Preservation Plan and include resiliency planning to address long term risk.</p>	<p>1. In Progress</p> <p>2. The County is working with the Land Conservancy of NJ to update the Farmland Preservation Plan. Work is ongoing and expected to be ready for Commissioner adoption late 2025. Work on the plan update is funded using County Open Space Trust and a grant from the State Agricultural Development Committee. The project cost is estimated at \$70,000.</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>
2021-Sussex County-009	Update Land Development Standards	All Hazards	Department of Engineering and Planning, Planning Board	<p>Problem: The County's Land Development Standards have not been updated since 2008.</p> <p>Solution: The County will update the Land Development Standards. The update will include discussion on green technologies and BMPs for stormwater.</p>	<p>1. In Progress</p> <p>2. The County has not advanced a project to update the 2008 Land Development Standards. The initiative will remain on the Division of Planning task list until such time as staffing resources become available to begin an update of the standards.</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>
2021-Sussex	Master Circulation Plan for	All Hazards	Department of Engineering and Planning	<p>Problem: The Master Circulation Plan for Transportation is due for update.</p>	<p>1. In Progress</p> <p>2. The County has not advanced a project to develop a Master circulation</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
County-010	Transportation Update			Solution: The County will update the Master Circulation Plan for Transportation, using information from the Hazard Mitigation Plan to identify and reduce risk to the transportation system and maintain emergency access.	Plan. The initiative will remain on the Division of Planning task list until such time as staffing resources become available to begin an update of the standards.	
2021-Sussex County-011	Adopt the Wastewater Management Plan	Severe Weather, Flood, Hurricane, Nor'easter.	Department of Engineering and Planning	Problem: The County Wastewater Management Plan is currently in draft form and requires adoption.  Solution: The County's Wastewater Management Plan is currently in draft form. Prior to adoption, the County will use information from the Hazard Mitigation Plan to make updates to reduce risk to the wastewater management system.	1. In Progress 2. An update to the County Wastewater Management Plan remains in the development stage. Work will be advanced based upon availability of staffing resources and NJDEP regulatory requirements.	1. Include in update 2. Plan is in development stage, not draft form. 3. Not applicable
2021-Sussex County-012	Update Stormwater Pollution Prevention Plan	Flood, Severe Weather	Department of Engineering and Planning	Problem: The County's Stormwater Pollution Prevention Plan requires update.  Solution: The County will update the Stormwater Pollution Prevention Plan, using information from the Hazard Mitigation Plan to assist in the update regarding storms and stormwater.	1. Complete 2. The County's Stormwater Pollution Prevention Plan underwent an update and was adopted in 2024.	1. Discontinue 2. Not applicable 3. The County's Stormwater Pollution Prevention Plan underwent an update and was adopted in 2024.
2021-Sussex County-013	PPE for Disease Outbreak Events	Disease Outbreak	Department of Health and Human Services	Problem: During the current COVID-19 pandemic, an adequate supply of personal protective equipment (PPE) for County staff was difficult to come by. Without proper PPE, it puts staff and emergency responders at risk to the spread of infectious diseases.  Solution: The County will purchase PPE to create a stockpile for municipal staff. This will include gloves, masks, gowns, antibacterial handwash, antiviral cleaning solutions, sanitizers, and misters.	1. Complete 2. The County has established methods of purchasing PPE, including bolstering its PPE stockpiles.	1. Discontinue 2. Not applicable 3. The County has established methods of purchasing PPE, including bolstering its PPE stockpiles.



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Sussex County-014	Disinfecting Equipment for County Facilities	Disease Outbreak	Department of Health and Human Services, Facilities	<p>Problem: In order to keep County facilities open and functioning during disease outbreak events, the County will require emerging technologies for the disinfecting of County facilities.</p> <p>Solution: The County Division of Facilities staff will continue to research emerging technologies for the disinfecting of buildings that would allow for continuing operations during disease outbreak events. The Facilities Department will deploy / install technologies that are determined to be cost-effective.</p>	<p>1. Complete</p> <p>2. The County has established updated methods for the thorough disinfecting of County facilities.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. The County has established updated methods for the thorough disinfecting of County facilities.</p>
2021-Sussex County-015	Increased Computer Technology and Software for Health Department	Disease Outbreak	Department of Health and Human Services	<p>Problem: The Health Department requires increased technological capabilities to track disease outbreak events, notify the public of important updates, share information between departments, and allow for registration for testing, treatment, and vaccination.</p> <p>Solution: The County will invest in funds to upgrade the Health Department's computer hardware and software capabilities to better identify, respond to, and treat disease outbreak events.</p>	<p>1. In Progress</p> <p>2. The County is currently looking into new technologies to notify the public of important updates, share information between departments, and allow for registration for testing, treatment, and vaccination.</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>
2021-Sussex County-016	Office of Bridges and Traffic Backup Power	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter	Facilities	<p>Problem: Backup power sources are necessary to maintain critical services for critical facilities. The Office of Bridges and Traffic lacks a backup power source.</p> <p>Solution: Facilities will research what size generator is needed to power the Office of Bridges and Traffic. The County will then purchase and install the selected generator and necessary electrical components to supply backup power to the Office of Bridges and Traffic.</p>	<p>1. No Progress</p> <p>2. Due to financial constraints and lack of funding sources, this action has not been completed.</p>	<p>1. Include in update</p> <p>2. Merge with Action ____ as the office is in the same building as public works.</p> <p>3. Not applicable</p>





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Sussex County-017	County Facilities Hazard Surveying	Earthquake, Severe Weather, Severe Winter Weather	Facilities	<p>Problem: County facilities should be protected from hazards to maintain continuity of operations. Numerous facilities are aging and were built to standards that are lower than modern building requirements.</p> <p>Solution: The County will complete the following surveys of County Facilities:</p> <ul style="list-style-type: none"><li>• Soil and shake characteristics with potential vulnerabilities to earthquake forces.</li><li>• Structures that may be at risk during an earthquake</li><li>• Wind vulnerabilities (buildings were designed to 70 mph; new updated code is 90 mph)</li><li>• Structural characteristics that make them vulnerable to excessive snow and ice loads</li><li>• The County will then pursue necessary structural improvements that are identified by these surveys.</li></ul>	1. No Progress 2. Due to financial constraints and lack of funding sources, this action has not been completed.	1. Include in update 2. Not applicable 3. Not applicable
2021-Sussex County-018	Frankford Wastewater Facility Upgrades	Hazardous Materials	Facilities, Sussex County Municipal Utilities Authority	<p>Problem: The Frankford Wastewater Treatment facility requires upgrade of the force main to prevent spills of sewage.</p> <p>Solution: County Facilities will work with the Sussex County Utilities Authority to upgrade the force main at the Wastewater Facility.</p>	1. No Progress 2. Due to financial constraints and lack of funding sources, this action has not been completed.	1. Include in update 2. Not applicable 3. Not applicable



### 2.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Sussex participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Sussex would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in County priorities.

Table 2-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 2-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 2-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X			X				X	X
Disease Outbreak	X				X					
Drought	X	X			X					X
Earthquake	X	X			X					X
Flood	X	X		X	X	X	X			X
Geological Hazards	X	X			X					X
Hazardous Materials	X	X			X					X
Hurricane	X	X			X					X
Infestation	X				X					
Nor'easter	X	X			X	X				X
Severe Weather	X	X			X					X
Severe Winter Weather	X	X			X	X				X
Wildfire	X	X		X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 2-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-SussexC-01	Municipal Floodplain Administrator Tracking	1	1	1	1	1	1	0	1	1	0	1	1	0	1	11	High
2025-SussexC-02	NFIP Training for County and Municipal Officials	1	1	1	1	1	1	0	1	1	0	1	1	0	1	11	High
2025-SussexC-03	Fredon Civic Center Generator	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-SussexC-04	Public Works Facility Snow Load Retrofit	1	1	1	1	1	0	0	1	1	1	1	1	0	0	11	High
2025-SussexC-05	Wildfire Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-SussexC-06	Repetitive Loss Mitigation Support	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-SussexC-07	Update Farmland Preservation Plan	0	1	1	1	1	0	1	0	1	1	0	1	0	1	9	Medium
2025-SussexC-08	Update Land Development Standards	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-SussexC-09	Master Circulation Plan for Transportation Update	1	0	1	1	1	1	0	0	1	1	0	1	1	1	10	Medium
2025-SussexC-10	Wastewater Management Plan Update	0	1	1	1	1	1	1	0	1	1	1	1	1	1	12	High
2025-SussexC-11	Increased Computer Technology and Software for Health Department	1	0	1	1	1	1	0	1	1	0	0	1	0	0	8	Medium
2025-SussexC-12	County Facilities Hazard Surveying	0	1	1	1	1	0	0	0	1	1	0	1	1	0	8	Medium



Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-SussexC-13	Frankford Wastewater Facility Upgrades	0	1	1	0	1	0	1	1	1	0	0	1	1	0	8	Medium
2025-SussexC-14	High Hazard Potential Dam Rehab	1	1	1	0	1	0	0	1	1	1	1	1	1	1	11	High
2025-SussexC-15	Integration of Mitigation Principles into Planning and Zoning Initiatives	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-SussexC-16	Dam Repairs Across Sussex County	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-SussexC-17	Dam Failure Inundation Mapping	1	1	1	1	1	0	1	1	1	1	0	1	0	1	11	High

*Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).*



## Action 2025-SussexCo-01. Municipal Floodplain Administrator Tracking

<b>Lead Agency:</b>	Sussex County OEM		
<b>Supporting Agencies:</b>	NJDEP, Municipal Floodplain Administrators		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Jurisdictions in the County participate in the National Floodplain Insurance Program, which is implemented by Floodplain Administrators in each jurisdiction. Floodplain Administrators in the County's jurisdictions have changed in recent years. There is not a list being maintained regularly to update the contact information for each jurisdictional Floodplain Administrator. New Jersey Department of Environmental Protection is not able to update their Floodplain Administrator list without information from County and Local level government.		
<b>Description of the Solution:</b>	The County will create a survey annually to collect the name and contact information for each jurisdiction's Floodplain Administrator. The creation of this list will allow the County to keep an updated list of municipal FPA contact information which can then be shared with both the municipalities for intra-governmental collaboration for flooding concerns and to NJDEP so any concerns brought to the agency can be sent to the correct municipal contact.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Annual Budget		
<b>Implementation Timeline:</b>	Within 3 years, then ongoing		
<b>Goals Met:</b>	4, 5		
<b>Benefits:</b>	Maintaining and providing updated lists of jurisdictional floodplain administrators and their contact information to NJDEP ensures the correct individual is being notified regarding any concerns related to flooding.		
<b>Impact on Socially Vulnerable Populations:</b>	Identifying these officials provides opportunities for socially vulnerable populations who have historically lived in areas of high flood risk to have a line of communication to ask questions and have concerns addressed.		
<b>Impact on Future Development:</b>	Officials have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The identified floodplain administrators can provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This will strengthen the NFIP capability for the County, municipalities, and the State by identifying the correct points of contact for floodplain administration. This will allow any issues surrounding flooding to be identified and directed to the correct party.		
<b>Climate Change Considerations:</b>	Climate change is likely to result in stronger and more frequent rainfall events that will contribute to increased flood risk		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Problem persists
	Hire outside contractors for floodplain administration		Costly, would need to maintain list of who from contractor is Floodplain Administrator as well.





## 2. County of Sussex

	Rely on NJDEP list	New Jersey Department of Environmental Protection is not able to update their Floodplain Administrator list without information from County and Local level government.
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## Action 2025-SussexCo-02. NFIP Training for County and Municipal Officials

<b>Lead Agency:</b>	Sussex County OEM		
<b>Supporting Agencies:</b>	NJDEP, Municipal Floodplain Administrators		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Jurisdictional Floodplain Administrators may change as often as annually. Floodplain Administrators may be unaware of the responsibilities associated within administering the National Flood Insurance Program (NFIP) and its requirements within their jurisdiction. The proper administration of the NFIP assists property owners with receiving flood insurance, which allows the property owners to recover faster when flood waters recede and assists in the overall reduction of flood risk by implementing floodplain management regulations.		
<b>Description of the Solution:</b>	To assist in the education of jurisdictional Floodplain Administrators, partner with the New Jersey Department of Environmental Protection (NJDEP) to annually offer a training on the regulations of the NFIP and responsibilities of being a Floodplain Administrator. The Sussex County Office of Emergency Management will host the training.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Annual Budget		
<b>Implementation Timeline:</b>	Within 3 years, then ongoing		
<b>Goals Met:</b>	4, 5		
<b>Benefits:</b>	Providing an opportunity for County and municipal staff and officials to become further educated on floodplain management practices and standards can aid in the development of plans and procedures in a way that is conscious of the flood hazard.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	Officials that attend trainings will have a more confident understanding of floodplain management principles and the basics of NFIP requirements and standards.		
<b>Climate Change Considerations:</b>	Climate change is likely to result in stronger and more frequent rainfall events that will contribute to increased flood risk		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Problem persists	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-SussexCo-03. Fredon Civic Center Generator

<b>Lead Agency:</b>	Sussex County Engineer		
<b>Supporting Agencies:</b>	Fredon Civic Center Facilities Manager, Sussex County OEM, Public Works		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials         </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire         </div> </div>		
<b>Description of the Problem:</b>	Sussex County has identified the Fredon Civic Center, located at 436 State Route 94 S, as an eligible sheltering location; however, the site does not have the power to produce the required wattage needed to support sheltering activities. Based on the population of the County, additional sheltering locations are needed to meet the County's sheltering needs, making it crucial to provide additional electrical power to the Fredon Civic Center. Sheltering facilities are critical to support the constituents in the County when an emergency is occurring, such as a large-scale power outage, strong hurricane, or flooding conditions.		
<b>Description of the Solution:</b>	The Fredon Civic Center facilities manager and County OEM will work with the County Engineer to identify the correct sized generator to support the energy demand at the Fredon Civic Center. Public Works will oversee installation of a fixed mounted diesel-powered generator and necessary electrical components to supply backup power to the Fredon Civic Center, located at 436 State Route 94 S. The Fredon Civic Center will be responsible for maintenance and testing of the generator following installation.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5, 7		
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem continues	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	



## Action 2025-SussexCo-04. Public Works Facility Snow Load Retrofit

<b>Lead Agency:</b>	Sussex County Public Works		
<b>Supporting Agencies:</b>	Sussex County Engineer		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	The Department of Public Works (DPW) building (1 Spring Street, Newton, NJ) does not have a roof that meets current standards for snow load. Failure of the roof could lead to a reduction in critical services by DPW before, during, and after hazard events and increase the risk of roof collapse, endangering those inside the building.		
<b>Description of the Solution:</b>	The County Engineer will provide guidance on the retrofit of the Public Works building (1 Spring Street, Newton, NJ) to meet current snow load standards. Public Works or a hired contractor will assess the provided guidance and implement the appropriate measures to retrofit the Public Works building to meet current snow load standards.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 6		
<b>Benefits:</b>	This action will protect the Public Works building from collapse from snow loads associated with severe winter weather and nor'easters.		
<b>Impact on Socially Vulnerable Populations:</b>	The Public Works Department which operates out of the Public Works building provides services to the entire population of Sussex County, including its socially vulnerable populations. Should the snow load be too great for the existing Public Works building, the services provided by the Public Works Department may be hindered.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect the Public Works building from suffering a potential roof collapse.		
<b>Impact on Capabilities:</b>	This action will permit the Public Works Department to operate under heavy snowfall conditions without worrying that the snow load may cause the roof to collapse to some extent, which would hinder the Department's operations.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the severity, but decrease the frequency, of severe weather events such as nor'easters and severe winter weather. This action takes in account the chance of heavier snowfalls.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem continues	
	Build new structure	Costly, unnecessary	
	Replace roof without referencing changes in building standards	May result in same issue	



## Action 2025-SussexCo-05. Wildfire Outreach

<b>Lead Agency:</b>	Sussex County OEM		
<b>Supporting Agencies:</b>	Sussex County IT, NJFFS		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Sussex County is a densely forested County, with over half of its land cover being identified as forested land. Although many forested areas of the County is within State preserved land, the forested locations abut to residential communities. The public may not be aware, or educated, on how to prepare for a wildfire and what is at risk.		
<b>Description of the Solution:</b>	Sussex County Emergency Management will work with the Division A liaison with the NJ Forest Fire Service to provide public information surrounding wildfires (i.e. how to prepare, what is at risk, where the risk is at, etc.) on the County's website.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	County Budget		
<b>Implementation Timeline:</b>	Within 2 years, then ongoing		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will create opportunities to educate and inform populations on the wildfire hazard risk. Utilizing the knowledge from the NJFFS will ensure the resources provided are verified.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations, as well as the entire population of the County, will have the opportunity to become informed on the topic of wildfires and the risk which the hazard may pose to them and their property.		
<b>Impact on Future Development:</b>	Educating the public on the risks of wildfire may influence individuals to not live in forested or woodland locations, which may prevent future development in areas at risk to wildfires.		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand for utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the County's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate-related disaster events. With temperatures projected to increase and dry conditions to persist, wildfires may become more frequent.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem continues	
	Rely on federal resources	Resources may be generalized and not specific to the risks in the County	
	Do not post information on website and instead offer only in-person information sessions	Persons may not be able to attend in-person sessions due to personal limitations and availability	



## Action 2025-SussexCo-06. Repetitive Loss Mitigation Support

<b>Lead Agency:</b>	Sussex County OEM		
<b>Supporting Agencies:</b>	Municipal Floodplain Administrators, Property Owners		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The County has 13 NFIP repetitive loss properties, 1 FMA repetitive loss property, and 1 NFIP severe repetitive loss property, but other properties may be impacted by flooding as well.		
<b>Description of the Solution:</b>	<p>Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or acquisition/relocation to protect them from future damage; repetitive loss and severe repetitive loss properties should be a priority, when applicable.</p> <p>Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option.</p> <p>Phase 2: Work with the property owners to implement selected action based on available funding from FEMA and local match availability.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	BRIC, FMA, HMGP, match from property owners		
<b>Implementation Timeline:</b>	Within 2 years, then annual outreach as grants or funding become available		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	Eliminates flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.		
<b>Impact on Socially Vulnerable Populations:</b>	Removing homes from the floodplain immediately removes the risk to life and property. Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	Removing the risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, riverine flooding, and coastal flooding from sea level rise and storm surge events. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem exists
	Levee around floodplain		Costly, not enough room





	Deployable flood barriers	Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.
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## Action 2025-SussexCo-07. Update Farmland Preservation Plan

<b>Lead Agency:</b>	Sussex County Engineering and Planning		
<b>Supporting Agencies:</b>	Land Conservancy of NJ, Sussex County Open Space, NJ Agricultural Development Committee		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Farmland Preservation Plan was last updated in 2008. A new update is needed which would incorporate more information on hazard mitigation. This plan works to preserve farmland in the County through the identification of various initiatives to promote the economic well-being of local farmers. The County is working with the Land Conservancy of NJ to update the Farmland Preservation Plan. Work is ongoing and expected to be ready for Commissioner adoption late 2025. Work on the plan update is funded using County Open Space Trust and a grant from the State Agricultural Development Committee. The project cost is estimated at \$70,000.		
<b>Description of the Solution:</b>	Sussex County Engineering and Planning will continue working with the Land Conservancy of NJ to update the Farmland Preservation Plan by late 2025, using funding from the County Open Space Trust and a grant from the State Agricultural Development Committee.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	County Open Space Trust, State Agricultural Development Committee grant		
<b>Implementation Timeline:</b>	Within 2 years		
<b>Goals Met:</b>	4, 5		
<b>Benefits:</b>	The updating of the Farmland Preservation Plan will provide an updated inventory of farmlands within the County and will identify the potential acreage of farmland available for preservation. This plan assists in furthering the County's efforts to prevent development where it may be unnecessary and to reduce the possibility of future development in areas which may otherwise be at risk to certain hazards.		
<b>Impact on Socially Vulnerable Populations:</b>	Not applicable		
<b>Impact on Future Development:</b>	This plan will outline preservation strategies for farmland in the County, preventing future development in these areas which can reduce hazard risk.		
<b>Impact on Critical Facilities/Lifelines:</b>	Preserving farmlands reduces the potential number of residents or future residents within the County by preventing development on these lands. Therefore, the likelihood of heightened demand for critical services, including first responders, utilities, governmental operations, etc. would be lowered.		
<b>Impact on Capabilities:</b>	This action will update an already existing planning capability of the County, making it more resilient by outlining initiatives to preserve farmland and reduce the potential structural and building damages or impacts from the identified hazards.		
<b>Climate Change Considerations:</b>	As climate change projections become reality, the need for open space to reduce impervious coverage becomes heightened. Green, open, and agricultural lands assist in absorbing heat from the atmosphere without emitting any heat in return.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem continues



## 2. County of Sussex

	Search for additional funding	May interrupt the current project schedule to seek additional funding
	Do not continue plan update	Outdated information would then be utilized to support other plans and grant opportunities



## Action 2025-SussexCo-08. Update Land Development Standards

<b>Lead Agency:</b>	Sussex County Engineering and Planning								
<b>Supporting Agencies:</b>	Planning Board								
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div>								
<b>Description of the Problem:</b>	The County's Land Development Standards have not been updated since 2008. The purpose of these standards are to provide rules, regulations, and standards for site plans and subdivisions and procedures for review of site plans and subdivisions within the County's jurisdiction to allow land development that is compatible and harmonious with the existing, planned, and contemplated infrastructure base of the County and to protect the public health, safety, and welfare; communicate the process of development review to applicants and municipalities; promote Villages and Centers with a pedestrian realm as a preferred land development type in order to implement the Sussex County Strategic Growth Plan; and internalize external costs.								
<b>Description of the Solution:</b>	Sussex County Engineering and Planning will update the Land Development Standards in partnership with the Sussex County Planning Board. The update will include discussion on green technologies and best management practices for stormwater management.								
<b>Estimated Cost:</b>	Low								
<b>Potential Funding Sources:</b>	County Budget								
<b>Implementation Timeline:</b>	5 years								
<b>Goals Met:</b>	4, 5								
<b>Benefits:</b>	Mitigation considerations being taken when developing or updating land development standards can lessen the risk of damage from a hazard event and increase overall community resiliency.								
<b>Impact on Socially Vulnerable Populations:</b>	Communities that regularly and collaboratively update their planning efforts are more likely to have identified ways to best work with vulnerable populations to increase their level of preparedness.								
<b>Impact on Future Development:</b>	Updated land development standards ensure that any new development that does take place is built to the safest standards based upon the best available data.								
<b>Impact on Critical Facilities/Lifelines:</b>	Integrating mitigation into land development standards protects existing infrastructure and guides the safe development of new construction.								
<b>Impact on Capabilities:</b>	A consolidated planning process brings together the capabilities of agencies and departments and better identifies what resources are available at any given point in time and where they are needed most.								
<b>Climate Change Considerations:</b>	As the climate changes, planning processes will require a more intense focus on plan maintenance and gathering of the best data to remain current and accurate over time.								
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)								
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)								
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th><th>Evaluation</th></tr> </thead> <tbody> <tr> <td>No Action</td><td>Current problem exists</td></tr> <tr> <td>Update only policies and regulations</td><td>Plans may not contain the most updated, relevant resources to be considered good reference documents</td></tr> </tbody> </table>			Action	Evaluation	No Action	Current problem exists	Update only policies and regulations	Plans may not contain the most updated, relevant resources to be considered good reference documents
Action	Evaluation								
No Action	Current problem exists								
Update only policies and regulations	Plans may not contain the most updated, relevant resources to be considered good reference documents								



	Focus only on best practices for stormwater management in updates	Will not be all inclusive, additional updates will be necessary
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## Action 2025-SussexCo-09. Master Circulation Plan for Transportation Update

<b>Lead Agency:</b>	Sussex County Engineering and Planning	
<b>Supporting Agencies:</b>	Sussex County Public Works	
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire
<b>Description of the Problem:</b>	The Ten-Year Mobility Study is due for update. The goal of the study is to develop strategies to address transportation needs in the coming decade. The study identifies challenges and issues that have both resulted from the study process and represent challenges that will be faced during the implementation period for the plan; presents the study steps and the key findings that have resulted from the overall process; and presents the recommended steps that should be taken by Sussex County and its associated partners to address current and emerging transportation needs over the next 10 years.	
<b>Description of the Solution:</b>	Sussex County Engineering and Planning will update the Master Circulation Plan for Transportation in partnership with Sussex County Public Works, using information from the Hazard Mitigation Plan to identify and reduce risk to the transportation system and maintain emergency access.	
<b>Estimated Cost:</b>	Medium	
<b>Potential Funding Sources:</b>	FTA grants, NJDOT grants, County Budget	
<b>Implementation Timeline:</b>	Within 5 years	
<b>Goals Met:</b>	4, 5	
<b>Benefits:</b>	The update to this study will identify challenges and issues that have both resulted from the study process and represent challenges that will be faced during the implementation period for the plan; present the study steps and the key findings that have resulted from the overall process; and present the recommended steps that should be taken by Sussex County and its associated partners to address current and emerging transportation needs.	
<b>Impact on Socially Vulnerable Populations:</b>	This study will assess all modes of transportation with Sussex County, including public transportation which is utilized significantly by socially vulnerable populations. Outcomes of this study may benefit these populations as strategies identified may include to strengthen public transportation in the County and expand its offerings.	
<b>Impact on Future Development:</b>	Future development in the County may be impacted by the completion of this study as outcomes may include the expansion of various transportation systems, including public transportation and the extension or widening of roadways. In either case, land would possibly need to be developed for additional bus or train stops or the expansion of roadways. Conversely, future development could be halted due to study findings which may indicate future transportation development should not occur in newly identified hazard areas or protected areas.	
<b>Impact on Critical Facilities/Lifelines:</b>	This action directly impacts the transportation lifeline. Outcomes from this study may benefit or negatively impact this lifeline.	
<b>Impact on Capabilities:</b>	This action will update a current planning capability of Sussex County and provide recommended steps that should be taken to address current and emerging transportation needs.	
<b>Climate Change Considerations:</b>	The anticipated increase in temperatures may impact how transportation strategies are identified and implemented in the County. Extreme heat can cause asphalt to absorb and emit heat, which can impact roadways conditions, potentially damage vehicles, and cause railways to expand. Additional hazards, such as heavy rains and flooding conditions may cause a need to be identified surrounding stormwater management to relieve roadways of floodwaters.	
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)



## 2. County of Sussex

Priority	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action	Evaluation	
	No Action	Current problem exists	
	Only assess County roads in update	Update will not be fully inclusive of all transportation aspects	
	Do not reference hazard mitigation plan	Hazards which may impact the transportation lifeline will not be addressed	





## Action 2025-SussexCo-11. Wastewater Management Plan Update

<b>Lead Agency:</b>	Sussex County Engineering and Planning										
<b>Supporting Agencies:</b>	Sussex County Public Works										
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>										
<b>Description of the Problem:</b>	The County Wastewater Management Plan is currently in its development stages. Adoption of this plan continues the County's efforts of maximizing the diversion of the materials out of the solid waste stream into a recycling program.										
<b>Description of the Solution:</b>	The County's Wastewater Management Plan will be updated by Sussex County Engineering and Planning in partnership with Sussex County Public Works. Information from the Hazard Mitigation Plan will be used to make updates to reduce risk to the wastewater management system.										
<b>Estimated Cost:</b>	Medium										
<b>Potential Funding Sources:</b>	NJDEP, County Budget										
<b>Implementation Timeline:</b>	Within 5 years										
<b>Goals Met:</b>	4, 5										
<b>Benefits:</b>	An updated wastewater management plan will provide a needed overview on changes since the 2017 wastewater management plan. This update will include an overview on current wastewater services and responsibilities, current public water supply services, environmental, regional and local considerations to wastewater services, water resource management issues, future wastewater service and capacity, and significant actions to be taken.										
<b>Impact on Socially Vulnerable Populations:</b>	Populations which rely on the services from the MUA will benefit from this action, as maintain an up-to-date wastewater management plan will ensure the infrastructure in the County is being surveyed, and any identified issues within the service area are identified to be addressed.										
<b>Impact on Future Development:</b>	Future development in the County will have a plan which details how it may be tied into existing wastewater infrastructure.										
<b>Impact on Critical Facilities/Lifelines:</b>	This plan will update the existing wastewater management plan, which discusses the wastewater infrastructure within the County, including 24 municipalities within the County. Wastewater facilities are included in the water systems lifeline.										
<b>Impact on Capabilities:</b>	This action will update an already existing planning capability and integrate hazard mitigation principles.										
<b>Climate Change Considerations:</b>	Projected increased rates in precipitation, in particular heavy rains, and the associated heightened flood risk have the potential to impact wastewater management systems by infiltrated existing piping and overloading the systems. An updated plan can discuss how this may be avoided or mitigated.										
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)										
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)										
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low										
<b>Alternatives:</b>	<table border="1" style="width: 100%;"> <thead> <tr> <th>Action</th><th>Evaluation</th></tr> </thead> <tbody> <tr> <td>No Action</td><td>Current problem exists</td></tr> <tr> <td>Do not reference hazard mitigation plan</td><td>Hazards which may impact wastewater management systems will not be addressed</td></tr> <tr> <td>Create updated plan for the County and not include any municipalities</td><td>Ineffective and would not cover the County's full service area</td></tr> </tbody> </table>			Action	Evaluation	No Action	Current problem exists	Do not reference hazard mitigation plan	Hazards which may impact wastewater management systems will not be addressed	Create updated plan for the County and not include any municipalities	Ineffective and would not cover the County's full service area
Action	Evaluation										
No Action	Current problem exists										
Do not reference hazard mitigation plan	Hazards which may impact wastewater management systems will not be addressed										
Create updated plan for the County and not include any municipalities	Ineffective and would not cover the County's full service area										



## Action 2025-SussexCo-11. Increased Computer Technology and Software for Health Department

<b>Lead Agency:</b>	Sussex County Health and Human Services		
<b>Supporting Agencies:</b>	Sussex County OEM, Sussex County IT		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Health Department requires increased technological capabilities to track disease outbreak events, notify the public of important updates, share information between departments, and allow for registration for testing, treatment, and vaccination.		
<b>Description of the Solution:</b>	Sussex County Health and Human Services will invest in funds to upgrade its computer hardware and software capabilities to better identify, respond to, and treat disease outbreak events. Sussex County OEM and Sussex County IT will assist in researching the best available options for upgrades.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	County Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	5, 6, 7		
<b>Benefits:</b>	This action will permit Sussex County Health and Human Services to share critical information at a quicker rate which can inform the public of health emergencies and save lives. Furthermore, the advancement in technology would strengthen the County's ability to track infection rates, schedule testing, provide treatment, and give vaccinations.		
<b>Impact on Socially Vulnerable Populations:</b>	Increased technological capabilities would permit Sussex County Health and Human Services to expand its communication methods with socially vulnerable populations, which is critical for their health and well-being in the event of a disease outbreak, pandemic, or health emergency. Socially vulnerable populations are often the most at risk to disease outbreaks, pandemics, and health emergencies.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Updating medical equipment and capabilities ensures that all members of the community can receive adequate medical care and remain informed in the event of a personal or community-wide emergency.		
<b>Impact on Capabilities:</b>	Updating medical equipment and capabilities increases the ability of the community to assist outside agencies and respond internally to large-scale events.		
<b>Climate Change Considerations:</b>	A projected warmer, moist climate may provide a more desired habitat for vectors which carry disease, including mosquitos, ticks, and other pests and parasites. The increase in these vectors may lead to higher rates of illnesses in the County.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem exists	
	Resort to paper tracking	Inefficient and may cause errors	
	Hire outside firm to track	May not be cost effective; individuals may not want sensitive information outsourced	



## Action 2025-SussexCo-12. County Facilities Hazard Surveying

<b>Lead Agency:</b>	Sussex County Facilities		
<b>Supporting Agencies:</b>	Sussex County Engineering and Planning		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	County facilities should be protected from hazards to maintain continuity of operations. Numerous facilities are aging and were built to standards that are lower than modern building requirements, making these facilities vulnerable to the various hazards which impact the County.		
<b>Description of the Solution:</b>	Sussex County Facilities will complete the following surveys of County facilities in partnership with Sussex County Engineering and Planning: <ul style="list-style-type: none"> <li>• Soil and shake characteristics with potential vulnerabilities to earthquake forces.</li> <li>• Structures that may be at risk during an earthquake</li> <li>• Wind vulnerabilities (buildings were designed to 70 mph; new updated code is 90 mph)</li> <li>• Structural characteristics that make them vulnerable to excessive snow and ice loads</li> <li>• The County will then pursue necessary structural improvements that are identified by these surveys.</li> </ul>		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, County Budget		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	2, 6		
<b>Benefits:</b>	This action will strengthen the structural integrity of county facilities and minimize potential impacts from future hazards and emergency events. Furthermore, the enhanced protection and security of these facilities ensures that governmental services continue to be offered before, during, and after an emergency event or incident to support the community.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may rely on essential services provided by the County, often which are housed at county facilities. These services may include the library system, transportation services, social services, and senior programs.		
<b>Impact on Future Development:</b>	Individuals living in future developed areas would benefit from structurally sound and secured county facilities as they provide essential services.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will strengthen critical facilities within the County which provide essential services to the constituents of the County, including its residents and visitors.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the strength and integrity of county facilities.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem exists	
	Survey facilities which contain essential personnel only	All government buildings are considered critical facilities no matter the personnel in them, would cause potential bias	



	Build all new county facilities	Cost prohibitive
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## Action 2025-SussexCo-13. Frankford Wastewater Facility Upgrades

<b>Lead Agency:</b>	Sussex County Facilities		
<b>Supporting Agencies:</b>	Sussex County Municipal Utilities Authority		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	The Frankford Wastewater Treatment facility requires upgrade of the force main to prevent spills of sewage. External spills of sewage can negatively impact habitats of nearby species, as well as seepage into the ground, potentially impacting groundwater and nearby waterbodies. Internal spills of sewage can lead to mold growth and unpleasant odors, impacting human health.		
<b>Description of the Solution:</b>	Sussex County Facilities will work with the Sussex County Utilities Authority to identify the most cost effective and efficient method to upgrade the force main at the Wastewater Facility. Once identified, a contractor will be selected to implement the chosen solution.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	BRIC, County budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 6		
<b>Benefits:</b>	This action will prevent future ruptures, spills, or interruptions in the Frankford Wastewater Facility, which is a part of the County's wastewater management system, permitting the critical facility to operate as needed and support the residents, visitors, and emergency personnel in the Town.		
<b>Impact on Socially Vulnerable Populations:</b>	Populations which rely on the services from the Frankford Wastewater Facility will benefit from this action, as removing the risk for external sewage spills protects their health and potentially property from repercussions. Furthermore, this action protects potential water sources for the overall population of the County, as an external spill from the Facility could impact ground and surface water, both of which are sources of potable water in the County.		
<b>Impact on Future Development:</b>	Future development will be supported by stronger, more resilient, infrastructure.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will improve the County's wastewater system, which is part of the water systems lifeline, by strengthening its infrastructure to remove the risk of ruptures or interruptions from periods of heavy rain, severe storms, severe winter storms, and flexing of pavement during periods of extreme temperature. Resolving these issues will assist in preventing hazardous materials from spilling.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These periods of intense rain would cause further harm if a spill were to occur, as the water runoff would exacerbate the movement of the spilled materials.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem exists
	Build secondary facility		Very high cost



	Remove facility	Removal of facility not a possibility
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## Action 2025-SussexCo-14. High Hazard Potential Dam Rehab

<b>Lead Agency:</b>	Sussex County Engineer		
<b>Supporting Agencies:</b>	Sussex County OEM, Dam Owners, Municipal Engineers, NJDEP		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	There are 40 high hazard dams in the County within 15 of its jurisdictions, and several more in the surrounding Counties of Passaic, Morris, Warren (New Jersey), Orange (New York), and Pike (Pennsylvania). High hazard dams have the potential to severely impact those within inundation areas. Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event.		
<b>Description of the Solution:</b>	The Sussex County Engineer will work with its local jurisdictions and dam owners of high hazard dams in the County to complete an engineering study of the high hazard dams. Sussex County will provide any relevant information and input to Municipal Engineers regarding any County roads which may be impacted by a dam failure event at any of these dams. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the local jurisdictions and dam owners will pursue funding support with assistance from Sussex County, seek permit approval from NJDEP, and implement the cost-effective measures.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 7, 8		
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.		
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.		
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem exists	
	Decommission Dam	High cost, flood risk at high hazard dams, potential loss of waterbodies as an environmental and recreational resources.	





	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to dam conditions
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## Action 2025-SussexCo-16. Integration of Mitigation Principles into Planning and Zoning Initiatives

<b>Lead Agency:</b>	Sussex County Engineering and Planning		
<b>Supporting Agencies:</b>	Sussex County Planning Board, Sussex County OEM, Municipal Planning Boards, Municipal Zoning Boards, Municipal Planning Departments		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	Localities have not included hazard mitigation practices into their planning and zoning initiatives. Integrating mitigation into building and zoning protects existing infrastructure and guides the safe development of new construction.		
<b>Description of the Solution:</b>	During future updates of local planning and zoning initiatives, work with municipal agencies to integrate hazard mitigation principles and recommendations into the policies, plans, and regulations.  Tools and resources available from FEMA and other sources will be utilized to integrate climate adaptation planning such as FEMA's "Climate Adaptation Planning: Guidance for Emergency Managers" document.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	HMGP, BRIC, FMA, Annual Budget		
<b>Implementation Timeline:</b>	Within 3 years, then ongoing support		
<b>Goals Met:</b>	1, 2, 5, 7		
<b>Benefits:</b>	This action provides an opportunity for coordination amongst agencies and their planning efforts to improve the overall ability to prepare for, respond to, and recover from events. Mitigation considerations being taken when developing or updating building and zoning codes can lessen the risk of damage from a hazard event and increase overall community resiliency.		
<b>Impact on Socially Vulnerable Populations:</b>	Communities that collaborate and coordinate their planning efforts are more likely to have identified ways to best work with vulnerable populations to increase their level of preparedness.		
<b>Impact on Future Development:</b>	Coordinated planning efforts provide an opportunity for efficient and safe growth and development. Updated building and zoning codes ensure that any new development that does take place is built to the safest standards based upon the best available data.		
<b>Impact on Critical Facilities/Lifelines:</b>	Integrating mitigation into building and zoning protects existing infrastructure and guides the safe development of new construction.		
<b>Impact on Capabilities:</b>	A consolidated planning process brings together the capabilities of agencies and departments and better identifies what resources are available at any given point in time and where they are needed most.		
<b>Climate Change Considerations:</b>	As the climate changes, planning processes will require a more intense focus on plan maintenance and gathering of the best data to remain current and accurate over time. Tools and resources available from FEMA and other sources will be utilized to integrate climate adaptation planning such as FEMA's "Climate Adaptation Planning: Guidance for Emergency Managers" document.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	



	No Action	Current problem exists
	Update only policies and regulations	Plans may not contain the most updated, relevant resources to be considered good reference documents
	Wait for municipalities to reach out for assistance before offering help	Integration of hazard mitigation principles may not be performed thorough, if at all



## Action 2025-SussexCo-16. Dam Repairs Across Sussex County

<b>Lead Agency:</b>	Sussex County Engineer														
<b>Supporting Agencies:</b>	Municipal Engineers, Dam Owners, NJDEP														
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>	<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane														
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation														
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter														
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather														
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather														
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire														
<input type="checkbox"/> Hazardous Materials															
<b>Description of the Problem:</b>	<p>Several dams in Sussex County have received poor or unsatisfactory safety ratings on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. These dams include:</p> <ul style="list-style-type: none"><li>• Whites Pond Dam, Andover Township (<i>poor</i>)</li><li>• Hemlock Lake Dam, Andover Township (<i>poor</i>)</li><li>• Lake Valentine Dam, Andover Township (<i>poor</i>)</li><li>• Lake Aeroflex Dam, Andover Township (<i>poor</i>)</li><li>• West Shore Trail Dam, Byram Township (<i>poor</i>)</li><li>• Jefferson Lake Dam, Byram Township (<i>poor</i>)</li><li>• Cranberry Lake Dam, Byram Township (<i>poor</i>)</li><li>• New Jersey No Name # 11 Dam, Frankford Township (<i>poor</i>)</li><li>• J.A. Little Farm Pond Dam, Fredon Township (<i>poor</i>)</li><li>• Silver Lake Dam, Hardyston Township (<i>poor</i>)</li><li>• Fawn Lake Dam, Hardyston Township (<i>poor</i>)</li><li>• Bear Pond Dam E, Hopatcong Borough (<i>poor</i>)</li><li>• Holiday Pond Dam, Montague Township (<i>poor</i>)</li><li>• Steenykill Lake Dam, Montague Township (<i>poor</i>)</li><li>• Kulp Lake Dam, Montague Township (<i>poor</i>)</li><li>• Sawmill Pond Dam, Montague Township (<i>poor</i>)</li><li>• Fountain House Dam, Montague Township (<i>poor</i>)</li><li>• Camp Niwauna Dam, Sandyston Township (<i>poor</i>)</li><li>• Skellinger Lake Dam, Sandyston Township (<i>poor</i>)</li><li>• Camp Ryker Lake Dam, Sparta Township (<i>poor</i>)</li><li>• Sparta Lake Dam, Sparta Township (<i>unsatisfactory</i>)</li><li>• Rock Island Lake Dam, Sparta Township (<i>poor</i>)</li><li>• Lake Grinnell Dam, Sparta Township (<i>poor</i>)</li><li>• Lower Crandon Lake Dam, Stillwater Township (<i>poor</i>)</li><li>• Lake Plymouth Dam, Stillwater Township (<i>unsatisfactory</i>)</li><li>• Mountain Creek Lake Dam, Vernon Township (<i>poor</i>)</li><li>• Stump Pond Dam, Vernon Township (<i>poor</i>)</li><li>• Laurel Lake Dam, Vernon Township (<i>poor</i>)</li><li>• Lake Conway Dam, Vernon Township (<i>poor</i>)</li><li>• West Highland Lakes Dam, Vernon Township (<i>poor</i>)</li><li>• Upper Scenic Lake Dam, Vernon Township (<i>poor</i>)</li><li>• Lake Panorama Dike, Vernon Township (<i>poor</i>)</li><li>• Diversion Dam, Vernon Township (<i>poor</i>)</li><li>• Billhill Dam, Vernon Township (<i>poor</i>)</li><li>• Lake Wanda Dam, Vernon Township (<i>poor</i>)</li><li>• Pleasant Valley Lake Dam, Vernon Township (<i>poor</i>)</li><li>• Lake Panorama Dam, Vernon Township (<i>poor</i>)</li><li>• Scenic Lake Dam, Vernon Township (<i>poor</i>)</li><li>• Colesville Reservoir Dam, Wantage Township (<i>poor</i>)</li></ul>														
<b>Description of the Solution:</b>	The Sussex County Engineer will work with municipal engineers, dam owners and managers, and the NJDEP Bureau of Dam Safety to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.														
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected														
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget, Municipal Budgets														



<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 7, 8		
<b>Benefits:</b>	Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.		
<b>Impact on Socially Vulnerable Populations:</b>	The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.		
<b>Impact on Future Development:</b>	A community is more likely to remain in or relocate to an area where dam failure is less likely to occur. Future development downstream of dams will also be protected from dam failure.		
<b>Impact on Critical Facilities/Lifelines:</b>	(If dam is hydroelectric) – Utilities services are likely to remain intact with the decreased risk of damage to the structure. (If not hydroelectric) – Roads are more likely to remain undamaged with the storage of water behind the dam.		
<b>Impact on Capabilities:</b>	Conducting an engineering analysis will allow for more efficient allocation of resources and grant funds to retrofit structures as needed.		
<b>Climate Change Considerations:</b>	Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Risk of dam failure remains or increases over time	
	Work without Municipal Engineer involvement	Improvements made but may lack appropriate support from municipalities	
	Remove all dams	Without proper analysis, dam removal may increase flooding risk	



## Action 2025-SussexCo-17. Dam Failure Inundation Mapping

<b>Lead Agency:</b>	Sussex County Engineer		
<b>Supporting Agencies:</b>	Municipal Engineers, Dam Owners, NJDEP		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Sussex County does not have digitized dam failure inundation area data for any of the dams in the County. Dam failure inundation area data is crucial for effective planning purposes. The inundation data will be able to show the locations most likely to be impacted by a dam failure event. This data can assist first responders and dam owners define safety and response procedures.		
<b>Description of the Solution:</b>	Sussex County, in conjunction with municipal engineers, dam owners and managers, and NJDEP, will conduct dam inundation modeling in high-risk areas, prioritizing dams and their downstream areas that are classified as a high or significant hazard.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	Annual Budget, Municipal Budgets, NJDEP		
<b>Implementation Timeline:</b>	Within 4 years		
<b>Goals Met:</b>	1, 2, 7, 8		
<b>Benefits:</b>	Identification of dams that are at higher risk of failure and an understanding of inundation zones provides the opportunity to work with the downstream community to prepare for any potential flooding events and address any ways to mitigate the overall risk of failure.		
<b>Impact on Socially Vulnerable Populations:</b>	The most vulnerable populations may live directly downstream of the dam. Identifying which areas are most likely to experience significant impacts will allow for planning and staging of resources to protect lives and property.		
<b>Impact on Future Development:</b>	New structures are less likely to be built in areas where the risk of inundation is high. This can guide capital improvement projects within the municipality and only allow development in areas where it is safe to build, and guide future building codes, zoning, land use and permitting.		
<b>Impact on Critical Facilities/Lifelines:</b>	Allows for the identification of infrastructure that currently exists which may be vulnerable to impacts so that sufficient planning and preparation to increase resiliency and decrease likelihood of interruption.		
<b>Impact on Capabilities:</b>	Identification of inundation areas provides a framework to plan for the needs of communities that lie within the areas of highest risk.		
<b>Climate Change Considerations:</b>	Increase in extreme rainfall events may alter the floodplain, which impacts the dam inundation zones as water moves downstream.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem exists	
	Remove all dams	Without proper analysis, dam removal may increase flooding risk	
	Rely on NJDEP to conduct inundation mapping	NJDEP may not have all resources available locally to accurately portray inundation areas	



### 3. BOROUGH OF ANDOVER

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Borough of Andover with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Andover, describes who participated in the planning process, assesses Andover's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

#### 3.1 HAZARD MITIGATION PLANNING TEAM

The Borough of Andover identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Borough departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 3-1 summarizes Borough officials who participated in the development of the annex and in what capacity. Additional documentation of the Borough's planning activities through Planning Partnership meetings is included in Volume I.

Table 3-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Jessica Casella / EMC Address: 137 Main Street Andover, NJ 07821 Phone Number: (973) 786-6688 ext. 4 Email: jessiepw@yahoo.com	Name/Title: Beth Brothman / Municipal Clerk Address: 137 Main Street Andover, NJ 07821 Phone Number: 973-786-6688 Email: clerk@andoverboroughnj.org
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Harold Pellow / Engineer Address: 17 Plains Road Augusta, NJ 07822 Phone Number: (973) 948-6463 Email: hpellow@hpellow.com	
<b>Additional Contributors</b>	
Name/Title: Jessica Casella / EMC, Code Enforcement Officer Method of Participation: Provided information on previous events, capability assessment, building permits, and NFIP information. Attending Planning Partnership meetings. Reviewed and approved final draft of annex. Completed sign off sheet.	
Name/Title: John Hoag / former OEM Coordinator Method of Participation: Provided information on previous events, capability assessment, building permits, and NFIP information.	
Name/Title: Betty Brothman / Municipal Clerk Method of Participation: Reviewed and approved final draft of annex. Completed sign off sheet.	
Name/Title: John Morgan / Mayor Method of Participation: Reviewed and approved final draft of annex. Completed sign off sheet.	





## 3.2 COMMUNITY PROFILE

The Borough of Andover is located in southern Sussex County and bordered to the north, east and west by Andover Township and to the south by Green Township. Andover Junction Brook and Kymer Brook are two bodies of water that flow through the Borough. The Borough has a total area of 1.47 square miles and contains one unincorporated community, Andover Junction. According to the U.S. Census, the 2020 population for Andover was 595, a 1.8% percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 0.4-percent of the population is 5 years of age or younger, 0.3-percent is 65 years of age or older, 0.7-percent is non-English speaking, 0.4-percent is below the poverty threshold, and 0.4-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Borough of Andover, 42-percent of households earn less than the basic cost of living and are considered socially vulnerable (ALICE 2023).

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 3.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Andover performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Andover to identify opportunities for integrating mitigation concepts into ongoing Borough procedures.

### 3.3.1 Planning and Regulatory Capability and Integration

Table 3-2 summarizes the planning and regulatory tools that are available to Andover.



Table 3-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	Chapter 51 Construction Codes, 9/12/1977	State & Local	Construction Official
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The construction code provides guidance on how to design, build, and operate buildings. Modern building codes lead to major reductions in property losses from natural disasters.</i></p>				
<b>Zoning/Land Use Code</b>	Yes	State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, effective Aug 1, 1976, 40-55D- 62: 49 (Chapter 134-Zoning)	Local	Zoning Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. The purpose of this chapter is to encourage and promote the most appropriate use and logical development of land throughout the municipality; and therefore, to limit and to restrict and specify distances between the buildings and structures permitted therein, the nature and extent of their use and the nature and extent of the land usages in said districts.</i></p>				
<b>Subdivision Code</b>	Yes	Chapter 121 Subdivision of Land, 5/9/1960.	Local	Zoning Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The purpose of this chapter shall be to provide rules, regulations, and standards to guide land subdivision in the Borough of Andover in order to promote the public health, safety, convenience and general welfare of the Borough. It shall be administered to ensure orderly growth and development, the conservation, protection and proper use of land and adequate provision for traffic circulation, utilities, and services.</i></p> <p><i>The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.</i></p>				
<b>Site Plan Code</b>	Yes	Chapter 109 Site Plan Review, 9/11/1978.	Local	Planning and Zoning Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.</i></p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Stormwater Management Code</b>	Yes	Chapter 115 Stormwater Control, 3/13/2006	Local	Engineering Department

How has or will this be integrated with the HMP and how does this reduce risk?

*It is the purpose of this chapter to establish minimum stormwater management requirements and controls for "major development."*

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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- *Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- *Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*
- *Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*

<b>Growth Management</b>	Yes	Chapter 121 Subdivision of Land, 5/9/1960	Local	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*State Mandated on a municipal level. See Zoning Ordinance; Also - Plan Endorsement Process via the State Development & Redevelopment Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy.*

<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 9 Environmental Commission, 12/12/1989	Local	Environmental Commission
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How has or will this be integrated with the HMP and how does this reduce risk?

*Establishes an Environmental Commission in order to provide for the protection, development and use of natural resources, including water resources.*

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 74 Flood Damage Prevention, 8/8/2011	State & Local	Borough Engineer
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How has or will this be integrated with the HMP and how does this reduce risk?

*Chapter 74 Flood Damage Prevention. The Ordinance designates the Engineer as the Floodplain Administrator. The ordinance requires update to include the state mandated freeboard requirement.*

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Emergency Management Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

#### PLANNING DOCUMENTS

<b>General/Comprehensive Plan</b>	Yes	Borough of Andover Master Plan, 4/17/2017	Local	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*Several objectives of the plan align with those identified in the HMP update. The Reexamination Report, completed in 2017, is the Planning Board's assessment of the Master Plan and land development regulations of the Borough. This report decides if the Borough's needs are needing updating and if they still reflect the goals. If changes are needed, they are discussed in the Reexamination Report.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Capital Improvement Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	Yes	Andover Borough Stormwater Management Plan, Pending Approval	Local	Engineer
How has or will this be integrated with the HMP and how does this reduce risk? <i>These rules set forth the required components of regional and municipal stormwater management plans and establish the stormwater management design and performance standards for new (proposed) development. The design and performance standards for new development include groundwater recharge, runoff quantity controls, and runoff quality controls. The rules emphasize, as a primary consideration, the use of nonstructural stormwater management techniques including minimizing disturbance, minimizing impervious surfaces, minimizing the use of stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater runoff quantity control, stormwater runoff quality control, and the prohibition of major development to be located within or to discharge runoff from the major development into a 300-foot riparian zone without prior authorization from the Department under the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13.</i>				
<b>Stormwater Pollution Prevention Plan</b>	Yes	Andover Borough Stormwater Pollution Prevention Plan, Pending Approval	Local	Engineer
How has or will this be integrated with the HMP and how does this reduce risk? <i>The SPPP is in the process of conversion from Tier B requirement to Tier A requirements and describes how we implement the stormwater program in order to meet the requirements of our NJPDES Municipal Separate Storm Sewer System (MS4) permit.</i>				
<b>Open Space Plan</b>	Yes	Borough of Andover Master Plan, Open Space Plan Element, 2017	Local	Open Space Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>Open space serves many purposes, whether publicly or privately owned, and can include parks, recreational sites, scenery, trails, forests and woodlands, wetland, and stream corridors, rare or important habitats, farms, and historic properties. The plan establishes goals for the identification and prioritization of additional undeveloped land for protection, provides land stewardship and public access priorities for existing open space lands, and works to identify opportunities to expand connectivity between open space assets, neighborhoods, and trails.</i>				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Agriculture Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Action/ Resilience/Sustainability Plan</b>	Yes	Climate Change Resilience Strategy and Plan, 2021.	State	NJDEP
How has or will this be integrated with the HMP and how does this reduce risk? <i>New Jersey's first Statewide Climate Change Resilience Strategy provides a suite of forward-looking policy options to promote the long-term resilience of New Jersey to climate change. As a framework for policy, regulatory, and operational changes, the Resilience Strategy presents actions that New Jersey's Executive Branch can take to support the resilience of the state's communities, economy, and infrastructure. The Resilience Strategy includes 125 recommended actions across six priority areas.</i>				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Borough of Andover EOP, 2023	Local	Emergency Management Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Operations Plan defines the scope of preparedness and emergency management activities necessary in the Borough. This document assigns responsibility to organizations and individuals for carrying out specific actions that exceed routine responsibility at projected times and places during an emergency; sets lines of authority and</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<i>organizational relationships and shows how all actions will be coordinated; identifies how people and property are protected; and identifies personnel, equipment, facilities, supplies, and other resources available within the jurisdiction or by agreement with other jurisdictions.</i>				
<b>Continuity of Operations Plan</b>	Yes	Continuity of Operations Plan, 2014	Local	Emergency Management Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>These efforts identify how critical operations will continue under a broad range of circumstances. The plan reduces the risk of exposure and enables the Borough to avoid unexpected losses from adverse events and reduce the cost of disruption.</i>				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	Yes	Post-Disaster Recovery Plan, adopted in 2014	Local	Emergency Management Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>This plan is integrated with the HMP, EOP, COOP, and various other municipal plans which can speed recovery and prepare the community to reduce the impact of future disasters. It serves as a guidance document that identifies and lays out policies, operational strategies, and roles and responsibilities to help guide the decisions and actions of community leaders relative to long-term recovery and redevelopment following a major or catastrophic disaster. It serves as a blue print for rebuilding the physical, social, and economic fabrics of the community.</i>				
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 3.3.2 Development and Permitting Capability

Table 3-3 summarizes the capabilities of Andover to oversee and track development.

Table 3-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	The Construction Department is responsible for issuing all permits required for Construction, Additions, Alterations, Renovations, Demolitions of buildings.
<ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>		





	Yes/No	Comment
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory?	No	-
<ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>		
Describe the level of buildout in your jurisdiction.	N/A	There is limited space available for buildout within the Borough.

### 3.3.3 Administrative and Technical Capability

Table 3-4 summarizes potential staff and personnel resources available to Andover and their current responsibilities that contribute to hazard mitigation.

Table 3-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Planning Board consists of nine members, with no more than two alternate members. The Board shall adopt such rules and regulations as may be necessary to carry into effect the provisions and purposes of this chapter. In the issuance of subpoenas, administration of oaths and taking of testimony, the provisions of the County and Municipal Investigations Law of 1953. The Planning Board holds all powers of the Zoning Board of Adjustment.
Zoning Board of Adjustment	Yes	The Zoning Board of Adjustment was dismantled. The Planning Board holds all powers of the Zoning Board of Adjustment.
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	The Andover Borough Environmental Commission consist of 5 to 7 members, one which is a member of the Planning Board. The Commission can acquire property to maintain, improve, protect, limit the future use of or otherwise conserve and properly utilize open spaces and other land and water areas in the Borough. The Commission has the power to study and make recommendations concerning open space preservation, water resources management, air pollution control, solid waste management, noise control, soil and landscape protection, environmental appearance and protection of flora and fauna.
Open Space Board/Committee	Yes	Open Space Department
Economic Development Commission/Committee	Yes	The Economic Development Advisory Commission consists of a minimum of 4 members. The Commission has the power to inquire into, survey and publicize the extent, advantages and utility of vacant land in the borough which is zoned for commercial or industrial purpose; recommend to the Borough Council the methods of advertising the



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		advantages and opportunities and availability of real estate in the borough for commercial and industrial development; investigate the availability of state or federal grants; research and study the borough economics of every nature and to develop, assemble and distribute pertinent information; and promote the economic development of the borough and to establish programs.
Public Works/Highway Department	No	-
Construction/Building/Code Enforcement Department	No	The Borough of Andover has entered into a Shared Service Agreement with the Sussex County Sheriff's Office for the responsibilities of Fire Prevention. Commercial locations in Andover Borough will be inspected annually by the Office of the Fire Marshal & Fire Coordinators and that office will communicate directly with property owners regarding inspection requirements and payment of fees.
Emergency Management/Public Safety Department	No	-
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	County, Andover Township, Byram Township, and Green Township for fire response.
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Professional contract
Engineers or professionals trained in building or infrastructure construction practices	Yes	Professional contract
Planners or engineers with an understanding of natural hazards	Yes	Professional contract
Staff with expertise or training in benefit/cost analysis	Yes	Borough Engineer
Professionals trained in conducting damage assessments	Yes	Borough Engineer
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	Yes	Borough Engineer
Surveyors	Yes	Engineering services



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Emergency manager	Yes	Emergency Management Coordinator
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 3.3.4 Fiscal Capability

Table 3-5 summarizes financial resources available to Andover.

Table 3-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes-COAH fees
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	No
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 3.3.5 Education and Outreach Capability

Table 3-6 summarizes the education and outreach resources available to Andover.

Table 3-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Borough Clerk is responsible for public information.
Personnel skilled or trained in website development	Yes	Borough Clerk is responsible and trained in website development.
Hazard mitigation information available on your website	Yes	Information is regularly updated on Borough website.
Social media for hazard mitigation education and outreach	Yes	Facebook



Outreach Resources	Available? (Yes/No)	Comment
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Reverse 911, siren at Fire House.
Natural disaster/safety programs in place for schools	Yes	Disaster/safety programs are available in local schools.
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	The Borough releases a yearly newsletter which includes information and updates for the community. It also includes public safety information such as yearly water quality review summary and stormwater management.

### 3.3.6 Community Classifications

Table 3-7 summarizes classifications for community programs available to Andover.

Table 3-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	7/9	1997
National Weather Service StormReady Certification	Yes	7/9	1997
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	None	August 20, 2013
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 3.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 3-8 summarizes the adaptive capacity for each identified hazard of concern and the Borough’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement



Table 3-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor'easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

### 3.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 3-1 is responsible for maintaining this information.

#### 3.4.1 NFIP Statistics

Table 3-9 summarizes the NFIP policy and claim statistics for Andover.

Table 3-9. Andover NFIP Summary of Policy and Claim Statistics

# Policies	3
# Claims (Losses)	1
Total Loss Payments	\$4, 313.60
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*



Source: FEMA 2024

### 3.4.2 Flood Vulnerability Summary

Table 3-10 provides a summary of the NFIP program in Andover.

Table 3-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Borough occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No, not at this time.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown.
Are any RiskMAP projects currently underway in your jurisdiction? <ul style="list-style-type: none"> <li>If so, state what projects are underway.</li> </ul>	No
How do you make Substantial Damage determinations?	Insurance makes these determination.
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? <ul style="list-style-type: none"> <li>If there are mitigation properties, how were the projects funded?</li> </ul>	Unknown.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	N/A
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Engineering Department
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, online FEMA, State, and regional resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would consider attending continuing education and/or certification training on floodplain management.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review, engineering capabilities
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	The Borough looks at the zoning.
What are the barriers to running an effective NFIP program in the community, if any?	Funding and population size of the Borough.



NFIP Topic	Comments
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Unknown
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 27, Flood Damage Prevention ordinance.
What is the date that your flood damage prevention ordinance was last amended?	In 2011.
Does your floodplain management program meet or exceed minimum requirements? • If exceeds, in what ways?	The program meets the minimum requirements.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	No, not at this time.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	The Borough has considered joining CRS and would consider attending a seminar if offered.

### 3.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 3-11 through Table 3-13.

Table 3-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	0	0	0	0





	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 3-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 3-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Anticipated.					

## 3.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Andover's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 3.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Borough are shown in Figure 3-1 through Figure 3-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Andover has significant exposure. The maps show the location of potential new development, where available.

Figure 3-1. Andover Flood and Sinkhole Hazard Area Extent and Location Map

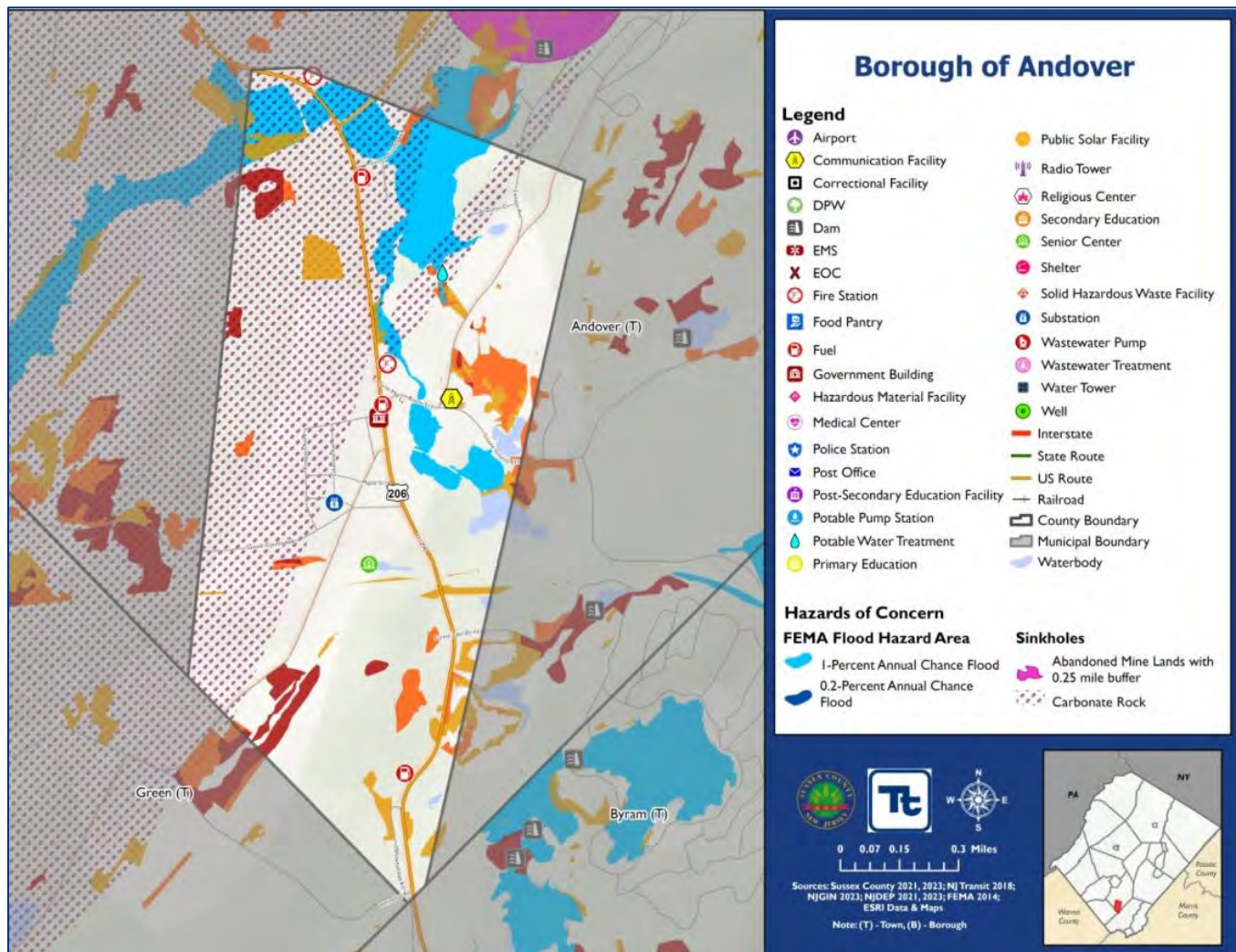




Figure 3-2. Andover Wildfire and HAZMAT Hazard Area Extent and Location Map

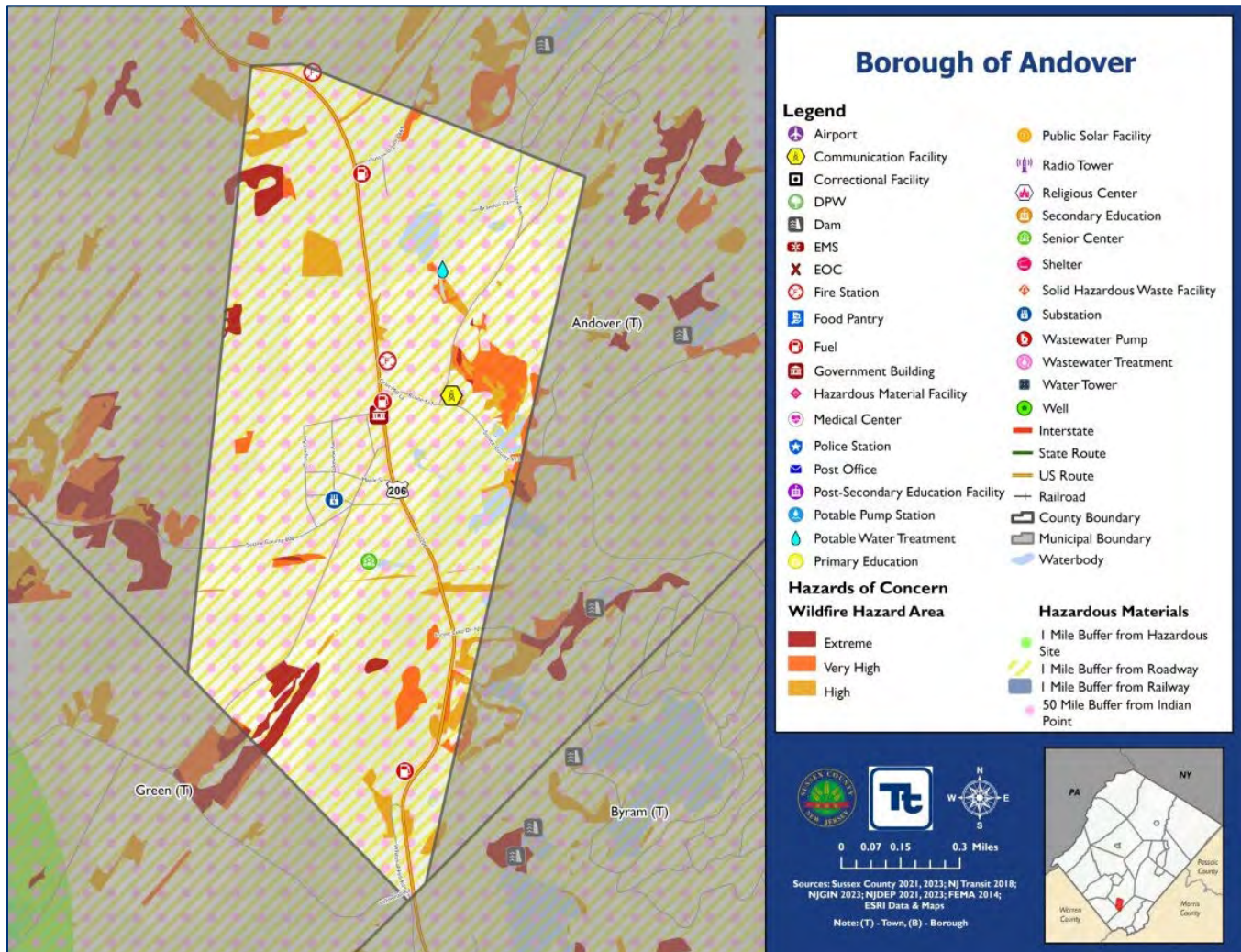
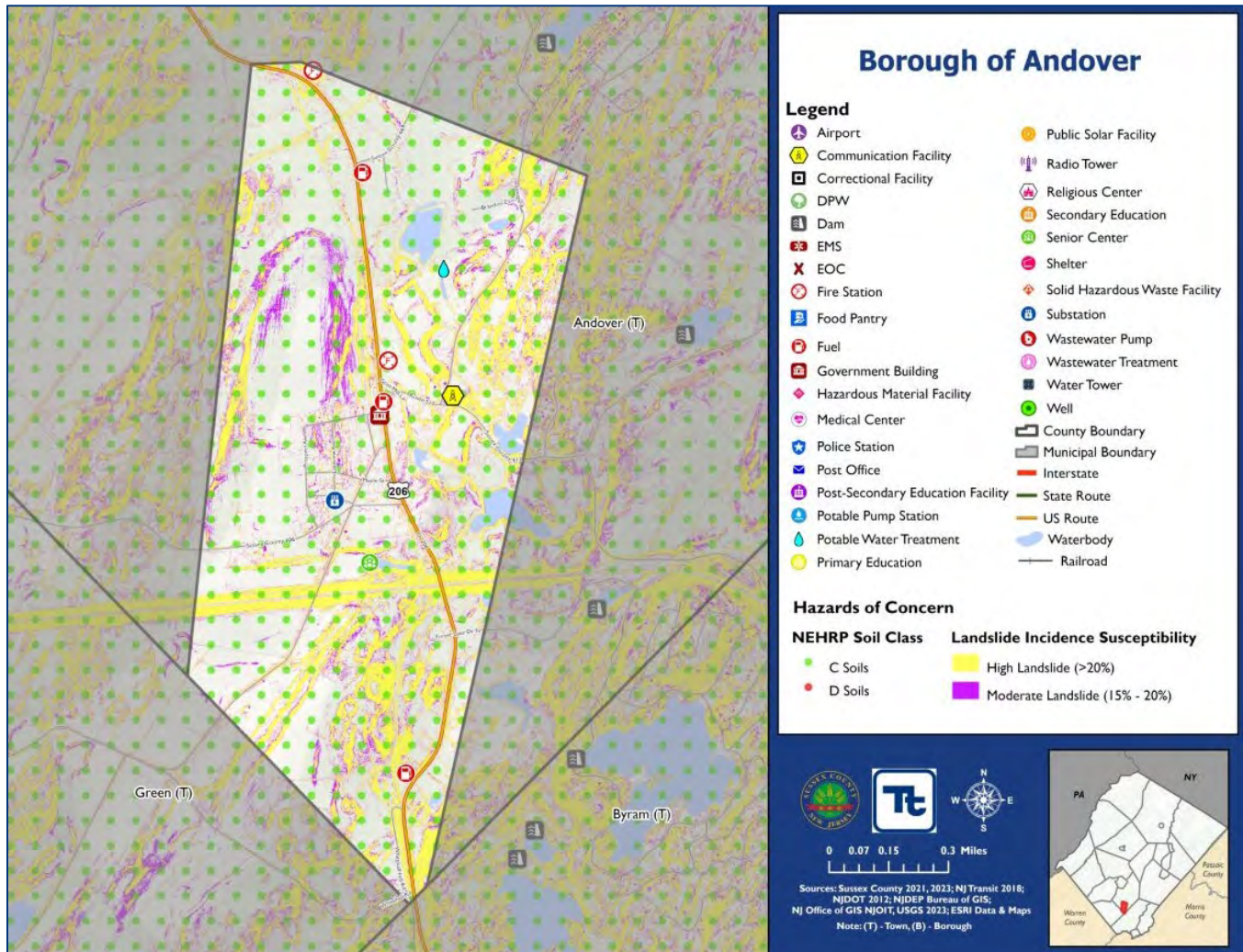


Figure 3-3. Andover NEHRP and Landslide Hazard Area Extent and Location Map







### 3.6.2 Hazard Event History

The history of natural and non-natural hazard events in Andover is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 3-14 provides details on loss and damage in Andover during hazard events since the last hazard mitigation plan update.

Table 3-14. Hazard Event History in Andover

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Andover
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Borough experienced state mandated socially distancing and masking requirements.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	No major damages were reported for the Borough.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	No major damages were reported for the Borough
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	No major damages were reported for the Borough

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

### 3.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Andover .



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Andover reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Borough indicated the following:

- The Borough accepts the following hazard rankings in Table 3-15.

Table 3-15 shows Andover's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 3-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 3-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 3-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
None located in the 1% or 0.2% Annual Chance Event.					



Source: Sussex County 2021, 2023; NJGIN 2023

## 3.6.4 Identified Issues

After review of Andover's hazard event history, hazard rankings, hazard location, and current capabilities, Andover identified the following vulnerabilities within the community:

- The Fire Station, located at 152 Main Street, currently lacks a backup-power source. Backup power sources are necessary to maintain critical services for critical facilities. When there is a power outage staff cannot open the doors to the Fire Station, which interrupts response operations for the Department.
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.
- Major disaster events can result in large amounts of debris that overwhelm normal trash collection operations. Depending on the amount generated, temporary staging areas for debris collection may be needed. The municipality does not have a disaster debris management plan in place. During a disaster that results in debris, a plan with outlined responsibilities is needed to adequately address post-disaster cleanup operations.
- The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Borough has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Borough and potentially reduce the number of emergency calls during hazardous events.
- Although the Borough has flood exposure, the Borough does not participate in the Community Rating System (CRS) program. By participating in the CRS program, the Borough can reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management. Borough residents which have flood insurance through the NFIP may see a decrease in flood insurance rates.





## 3.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 3.7.1 Past Mitigation Action Status

Table 3-17 indicates progress on the Borough's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 3.7.2 Additional Mitigation Efforts

Andover did not identify any additional mitigation efforts completed since the last HMP. Since the adoption of the County's first HMP, Andover has made significant mitigation progress in the following areas:

- Structural Mitigation Projects
- Critical Infrastructure repairs
- Updated Ordinance and Public Outreach



Table 3-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-AndoverB-001	Fire House Backup Power	Hurricane, Nor'easter, Severe Winter Weather, Severe Weather	Fire Department, OEM	<p><b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. The Fire House located on Route 206 lacks a backup power source. This prevents the building from being used as a backup sheltering location.</p> <p><b>Solution:</b> The Borough and the Fire House will partner to apply for grant funding to purchase and install a 100kW generator and necessary electrical components to supply backup power to the Fire House. Once installed, the Fire Department will be responsible for maintenance.</p>	<p>1. No Progress.</p> <p>2. Challenges with grant funding.</p>	<p>1. Keep in the 2025 HMP.</p> <p>2. The Borough and the Fire Department will partner to apply for grant funding to purchase and install a 100kW generator and necessary electrical components to supply backup power to the Fire House. Once installed, the Fire Department will be responsible for maintenance.</p> <p>3. Not applicable</p>
2021-AndoverB-002	Water Tower Retrofit	Drought, Wildfire	OEM, Engineer	<p><b>Problem:</b> The Water Tower requires retrofit to continue to be able to maintain water service. Vegetation around the base of the tower needs to be cleared.</p> <p><b>Solution:</b> The Borough will complete retrofits and upgrades to the Water Tower. The Borough will clear vegetation around the Tower to prevent overgrowth and lower wildfire risk.</p>	<p>1. Completed.</p> <p>2. Not applicable</p>	<p>1. Discontinue.</p> <p>2. Not applicable</p> <p>3. Completed.</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-AndoverB-003	Borough Municipal Building Retrofit	Severe Winter Weather	Administration, Engineer	<b>Problem:</b> The Borough municipal building roof is not designed to withstand current snow load standards. Failure of the roof would result in loss of the primary Borough building and disrupt critical services.  <b>Solution:</b> When the roof is ready to be replaced on the municipal building, the Borough will incorporate the current snow load standards during the design and installation of the replacement roof.	1. Completed. 2. The roof was repaired and not replaced.	1. Discontinue. 2. Not applicable 3. The roof was mitigated.
2021-AndoverB-004	Flood Damage Prevention Ordinance Update	Flood	Administration	<b>Problem:</b> The Borough's Flood Damage Prevention Ordinance lacks language to include the state mandated freeboard requirement.  <b>Solution:</b> The Borough will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement.	1. In Progress. 2. Not applicable	1. Keep in the 2025 HMP. 2. After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance. 3. Not applicable
2021-AndoverB-005	Disaster Debris Management Plan	All Hazards	OEM, Administration	<b>Problem:</b> The Borough lacks a Disaster Debris Management Plan.  <b>Solution:</b> The Borough will develop and adopt a Disaster Debris Management Plan. The Plan will include any necessary mutual aid discussions to supplement the Borough's capabilities.	1. No Progress. 2. Challenges with staff availability and funding capabilities.	1. Keep in the 2025 HMP. 2. The Borough will explore funding options to develop and adopt a Disaster Debris Management Plan. The Plan will include any necessary mutual aid discussions to supplement the Borough's capabilities. 3. Not applicable



### 3.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Andover participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Andover would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Borough priorities.

Table 3-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 3-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 3-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X	X	X		X	X
Disease Outbreak				X			X			
Drought		X		X		X	X		X	X
Earthquake	X	X		X	X	X	X		X	X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X	X		X	X	X	X		X	X
Hazardous Materials	X	X		X	X	X	X		X	X
Hurricane	X	X		X	X	X	X		X	X
Infestation	X	X		X	X	X	X			
Nor'easter	X	X		X	X	X	X		X	X
Severe Weather	X	X		X	X	X	X		X	X
Severe Winter Weather	X	X		X	X	X	X		X	X
Wildfire	X	X		X	X	X	X		X	X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 3-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-AndoverB-01	Generator for Fire House	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-AndoverB-02	Code Coordinated Ordinance	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-AndoverB-03	Disaster Debris Management Plan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2025-AndoverB-04	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-AndoverB-05	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-AndoverB-06	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-AndoverB-07	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-AndoverB-08	Community Rating System Program Participation	0	1	1	1	1	1	0	0	1	0	1	1	0	1	9	Medium

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



## Action 2025-AndoverB-01. Generator for Fire House

<b>Lead Agency:</b>	Fire Department																
<b>Supporting Agencies:</b>	Borough Administration, Emergency Management, Engineering																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input checked="" type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Fire Station, located at 152 Main Street, currently lacks a backup-power source. Backup power sources are necessary to maintain critical services for critical facilities. When there is a power outage staff cannot open the doors to the Fire House, which interrupts response operations for the Department.																
<b>Description of the Solution:</b>	The Borough and the Fire Department will partner to apply for grant funding to purchase and install a 100kW generator and necessary electrical components to supply backup power to the Fire House. Once installed, the Fire Department will be responsible for maintenance.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5, 6, 7																
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.																
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities for the Fire House and Fire Department.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Problem persists</td></tr><tr><td>Microgrid</td><td>Costly and difficult to implement.</td></tr><tr><td>Solar panels and battery backup</td><td>Solar power is unlikely to be able to provide battery power for extended power failure events.</td></tr></table>	Action	Evaluation	No Action	Problem persists	Microgrid	Costly and difficult to implement.	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.								
Action	Evaluation																
No Action	Problem persists																
Microgrid	Costly and difficult to implement.																
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.																





## Action 2025-AndoverB-02. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administration								
<b>Supporting Agencies:</b>	Building Department, Borough Administration, NFIP State Coordinator, FEMA Regional Office								
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>								
<b>Description of the Problem:</b>	<p>A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.</p>								
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.</p>								
<b>Estimated Cost:</b>	Staff time								
<b>Potential Funding Sources:</b>	Municipal budget								
<b>Implementation Timeline:</b>	Within 5 years								
<b>Goals Met:</b>	1, 2, 3, 4								
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>								
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>								
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>								
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>								
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>								
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>								
<b>Mitigation Category</b>	<div><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>								
<b>CRS Category</b>	<div><input checked="" type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>								
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low						
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Problem persists</td></tr><tr><td>Modify existing flood damage prevention ordinance</td><td>Time intensive</td></tr></table>	Action	Evaluation	No Action	Problem persists	Modify existing flood damage prevention ordinance	Time intensive		
Action	Evaluation								
No Action	Problem persists								
Modify existing flood damage prevention ordinance	Time intensive								



	Leave NFIP	Residents lose flood insurance coverage
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## Action 2025-AndoverB-03. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Building Department, Borough Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Major disaster events can result in large amounts of debris that overwhelm normal trash collection operations. Depending on the amount generated, temporary staging areas for debris collection may be needed. The municipality does not have a disaster debris management plan in place. During a disaster that results in debris, a plan with outlined responsibilities is needed to adequately address post-disaster cleanup operations.																
<b>Description of the Solution:</b>	The Borough will explore funding options to develop and adopt a Disaster Debris Management Plan. The Plan will include any necessary mutual aid discussions to supplement the Borough's capabilities.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events for the Borough.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities for the Borough and decrease flood impacts due to stormwater runoff.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Problem persists</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>	Action	Evaluation	No Action	Problem persists	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available								
Action	Evaluation																
No Action	Problem persists																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-AndoverB-04. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Borough by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Borough.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Borough.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-AndoverB-05. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Planning Board, Emergency Management, Borough Administration		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.		
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	Within 2 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.		
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will create a new Borough capability, while enhancing its current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	
	Wait for information from the State on flood-damaged properties	May be a delay in notice	



## Action 2025-AndoverB-06. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Sussex County Sheriff's Office		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials         </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire         </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP)         </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP)         </div>		
<b>CRS Category</b>	<div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI)         </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES)         </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements





## Action 2025-AndoverB-07. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Borough has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Borough and potentially reduce the number of emergency calls during hazardous events.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Borough events, the Borough newsletters, social media, the Borough website, and having the materials on display for the public at Borough libraries and offices. Consider hiring staff to work directly with socially vulnerable populations. Work with Sussex County to identify and create a list of socially vulnerable populations utilizing Register Ready.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Borough. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Borough will become educated on hazards risks. The Borough will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program. It would also assist the Borough in identifying where socially vulnerable populations are located in the jurisdiction.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	



### 3. Borough of Andover

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	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
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## Action 2025-AndoverB-08. Community Rating System Program Participation

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Borough Administration, Emergency Management		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Although the Borough has flood exposure, the Borough does not participate in the Community Rating System (CRS) program. By participating in the CRS program, the Borough can reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management. Borough residents which have flood insurance through the NFIP may see a decrease in flood insurance rates.		
<b>Description of the Solution:</b>	The Borough will evaluate the benefits and costs of participating in CRS program. If feasible, the Borough will join the program and begin implementing standards that exceed NFIP requirements.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	The participation in the CRS benefits communities by offering discounted rates for flood insurance premiums, which addresses the three goals of the program: reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management.		
<b>Impact on Socially Vulnerable Populations:</b>	The participation in the Community Rating System (CRS) benefits communities by offering discounted rates for flood insurance premiums, which may be more affordable for some socially vulnerable populations.		
<b>Impact on Future Development:</b>	Future development would need to adhere to any increased standards established as part of joining the CRS program such as increased freeboard and elevation certificate requirements.		
<b>Impact on Critical Facilities/Lifelines:</b>	Not applicable		
<b>Impact on Capabilities:</b>	This action would enhance the Borough's floodplain management capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These changes are likely to increase flood risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		-
	Adopt aspects of the CRS program into the floodplain management program		Increased floodplain management capabilities but no reduction in flood insurance premiums
	Abandon any floodplain management practices not required by NFIP		Reduction in floodplain management capabilities and increase in risk.



## 4. TOWNSHIP OF ANDOVER

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Andover with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Andover, describes who participated in the planning process, assesses Andover's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 4.1 HAZARD MITIGATION PLANNING TEAM

The Township of Andover identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Chief of Police represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 4-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 4-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Eric Danielson / Chief of Police, EMC Address: 134 Newton Sparta Road Newton, NJ 07860 Phone Number: (973) 383-5544 ext. 123 Email: edanielson@atpd.org	Name/Title: George Laoudis / Deputy EMC Address: 134 Newton Sparta Road Newton, NJ 07860 Phone Number: (973) 383-5544 ext. 123 Email: glaoudis@atpd.org
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Cory Stoner, Zoning Officer Address: 134 Newton Sparta Road Newton, NJ 07860 Phone Number: 973-383-4280 x320 Email: zoning@andovertwp.org	
<b>Additional Contributors</b>	
Name/Title: Eric Danielson, Chief of Police / EMC Method of Participation: Attended Planning Partnership meetings and Mitigation Strategy Workshop. Provided information on historical events, previous action status, capability assessment, and NFIP information. Reviewed and signed off on draft annex.	
Name/Title: Patricia Bussow, Administrator / Municipal Clerk Method of Participation: Attended Planning Partnership meetings. Reviewed and signed off on draft annex.	
Name/Title: Stephanie Pizzulo, Land Use Administrator Method of Participation: Attended Planning Partnership meetings.	
Name/Title: Erik Marra, Public Works Supervisor Method of Participation: Reviewed and signed off on draft annex.	



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Name/Title: Richard Bartlett, Deputy Emergency Management Coordinator  
Method of Participation: Attended Planning Partnership meetings.

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Name/Title: Cory Stoner, Zoning Officer / Floodplain Administrator / Engineer  
Method of Participation: Reviewed and signed off on draft annex.

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## 4.2 COMMUNITY PROFILE

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Andover Township is located in southern Sussex County and bordered to the north by the Townships of Hampton and Lafayette, to the south by the Townships of Green and Byram, to the east by the Township of Sparta and to the west by the Town of Newton and Fredon Township. Brighton, Clearwater, Pinkeyville, Springdale, Whitehall and Wawayanda are unincorporated communities in the Township. It has a total area of 20.7 square miles. Paulins Kill, Kymer Brook, Tar Hill Brook, Pequest River, and Andover Junction Brook are the bodies of water that flow through Andover Township. According to the U.S. Census, the 2020 population for Andover was 5,996, a 5.1 percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 3.7-percent of the population is 5 years of age or younger, 5.4-percent is 65 years of age or older, 0-percent is non-English speaking, 3.6-percent is below the poverty threshold, and 3.3-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Township of Andover, 25-percent of households earn less than the basic cost of living and are considered socially vulnerable (ALICE 2023).

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 4.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Andover performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed



and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Andover to identify opportunities for integrating mitigation concepts into ongoing Township procedures.

### 4.3.1 Planning and Regulatory Capability and Integration

Table 4-2 summarizes the planning and regulatory tools that are available to Andover.

Table 4-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	Chapter 30 Building Construction, adopted August 8, 2011	State and Local	New Jersey Department of Community Affairs
How has or will this be integrated with the HMP and how does this reduce risk? <i>The building code provides guidance on how to design, build, and operate buildings. Modern building codes lead to major reductions in property losses from natural disasters.</i>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 190 Zoning, July 30, 2001	Yes	Chapter 190
How has or will this be integrated with the HMP and how does this reduce risk? <i>The intent of Chapter 190 is to guide the appropriate development of all lands within the Township in a way that promotes public health, safety, and general welfare. The goals of Chapter 190 include, but are not limited to, safety to fire, flood panic, and other natural and man-made disasters. Chapter 190 also encourages and promotes the conservation of open space and natural resources to prevent urban sprawl.</i>				
<b>Subdivision Code</b>	Yes	Chapter 159 Subdivision of Land, December 13, 1973. Readopted November 12, 1984.	Yes	Chapter 159
How has or will this be integrated with the HMP and how does this reduce risk? <i>The purpose of Chapter 159 is to establish rules and regulations to guide land subdivision in the Township that promotes public health, safety, convenience, and general welfare. Chapter 159 is administered to promote orderly growth, development, conservation, protection, and proper use of land with adequate provisions for traffic circulation and utilities and services.</i>				
<b>Site Plan Code</b>	Yes	Chapter 131 Site Plan Review, November 12, 1984	Yes	Chapter 131
How has or will this be integrated with the HMP and how does this reduce risk? <i>The purpose of Chapter 131 is to establish the rules and regulations to guide the review of site plans in order to insure the orderly development of the Township.</i>				
<b>Stormwater Management Code</b>	Yes	Chapter 150, September 24, 2006. Amended February 18, 2021.	Yes	Chapter 150
How has or will this be integrated with the HMP and how does this reduce risk? <i>The intent of Chapter 150 is to establish the minimum stormwater management requirements and control on major development within the Township.</i>				
<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Growth Management</b>	Yes	Andover Township Master Plan, 2010	Yes	Township Council

How has or will this be integrated with the HMP and how does this reduce risk?

*The Growth Management Plan is an element in the Andover Township Master Plan.*

<b>Environmental Protection Ordinance(s)</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 55 Flood Damage Prevention, September 11, 2011.	Yes	Construction Official
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How has or will this be integrated with the HMP and how does this reduce risk?

*It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:*

- To protect human life and health;*
- To minimize expenditure of public money for costly flood control projects;*
- To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;*
- To minimize prolonged business interruptions;*
- To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;*
- To help maintain a stable tax base by providing for the alternate use and development of areas of special flood hazard so as to minimize future flood blight areas;*
- To ensure that potential buyers are notified that property is in an area of special flood hazard; and*
- To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Emergency Management Ordinance</b>	No	-	-	-
---------------------------------------	----	---	---	---

How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

#### PLANNING DOCUMENTS

<b>General/Comprehensive Plan</b>	Yes	Andover Township Master Plan, 2010. Rexamination Report, 2023.	Local	Land Use Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*Several objectives of the plan align with those identified in the HMP update. The Rexamination Report, completed in 2023, is the Planning Board's assessment of the Master Plan and land development regulations of the Township. This report decides if the Township's needs are needing updating and if they still reflect the goals. If changes are needed, they are discussed in the Rexamination Report.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Capital Improvement Plan</b>	Yes	Capital Improvement Plan	Local	Township Manager
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Township's municipal budget outlines the capital budget and improvement program for the next three years. There is a line item for various capital improvements</i>				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	Yes	Open Space & Recreation Plan, 2008. Updated in 2021.	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>This plan provides a framework for enhancing the Township's quality of life through improvements to open space and recreation opportunities. The Open Space and Recreation Plan is considered an element in the Township's Master Plan and provides the Township legal authority to control future development.</i>				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? •				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Transportation Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Agriculture Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Climate Action/ Resilience/Sustainability Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Tourism Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Business/ Downtown Development Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b> How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Operations Plan defines the scope of preparedness and emergency management activities necessary in the Township. This document assigns responsibility to organizations and individuals for carrying out specific actions that exceed routine responsibility at projected times and places during an emergency; sets lines of authority and organizational relationships and shows how all actions will be coordinated; identifies how people and property are protected; and identifies personnel, equipment, facilities, supplies, and other resources available within the jurisdiction or by agreement with other jurisdictions.</i>	Yes	Andover Township Emergency Operation Plan, Adopted 2021. Expire in 2025.	Local	Andover Township Emergency Management
<b>Continuity of Operations Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Substantial Damage Response Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Threat and Hazard Identification and Risk Assessment</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Post-Disaster Recovery Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 4.3.2 Development and Permitting Capability

Table 4-3 summarizes the capabilities of Andover to oversee and track development.

Table 4-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	The Construction Official grants the permits per Chapter 55 of the Municipal Code
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	The 2016 Housing Element & Fair Share Plan stated that the estimated total housing units in 2014 was 2,168 and due to current land use and NJDEP restrictions, any additional development would be limited
Describe the level of buildout in your jurisdiction.	N/A	There is available space for development within the Township.

### 4.3.3 Administrative and Technical Capability

Table 4-4 summarizes potential staff and personnel resources available to Andover and their current responsibilities that contribute to hazard mitigation.

Table 4-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Planning Board	Yes	The Land Use Board has the responsibility to guide development in the Township in accordance with the NJ Municipal Land Use Law and other State and local regulations. The Board reviews and grants approvals of applications for subdivisions and site plans and hears appeals and grants variances from a strict application of the Township Zoning Ordinance in particular cases. The Board is responsible for development of the Township Master Plan and for making recommendations to the Township Committee for new ordinances or revisions of existing ordinances.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	The Andover Township Environmental Commission is a citizen advisory group that makes recommendations to the Land Use Board regarding environmental issues within the Township. The Commissioners represent residents' long-term interests by acting as advocates for the environment, reviewing development applications, sponsoring public awareness programs, and evaluating the impact of potential environmental problems. The mission of the Andover Township Environmental Commission is to foster, protect, preserve, and maintain the natural resources and rural character of the township by encouraging environmentally healthy and sound development, and promoting awareness of nature-friendly practices and options among municipal officials, residents, and business people.
Open Space Board/Committee	Yes	Open space committee is responsible for designating and planning open space lands within the Township.
Economic Development Commission/Committee	Yes	The Economic Development Advisory Committee of Andover Township is dedicated to attracting, expanding, and retaining diversified economic opportunities in Andover Township; help build the current and future business income potential, by stabilizing and expanding our local tax base and enhance the quality of life for the township and its citizens.
Public Works/Highway Department	Yes	The Department of Public Works is responsible for clearing and maintaining 63 miles of roads year-round, as well as caring for the grounds, recreation facilities, and public buildings in the Township.
Construction/Building/Code Enforcement Department	Yes	The Building Department is serviced by the New Jersey Department of Community Affairs. The Township maintains a Construction Office and Zoning/Code Enforcement Office.
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management is located within the Andover Township Police Department, with the Chief of Police acting as the Township's Emergency Management Coordinator.



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	The Department of Public Works is responsible for clearing and maintaining 63 miles of roads year-round, as well as caring for the grounds, recreation facilities, and public buildings in the Township.
Mutual aid agreements	Yes	Police/Fire/EMS/DPW
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	The Township Planner and the Township Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	DCA is Township construction officials
Planners or engineers with an understanding of natural hazards	Yes	DCA
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	No	Utilize the Sussex County GIS Department
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Office of Emergency Management
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 4.3.4 Fiscal Capability

Table 4-5 summarizes financial resources available to Andover.

Table 4-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No



Financial Resources	Accessible or Eligible to Use? (Yes/No)
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 4.3.5 Education and Outreach Capability

Table 4-6 summarizes the education and outreach resources available to Andover.

Table 4-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Township Manager
Personnel skilled or trained in website development	Yes	Township Manager
Hazard mitigation information available on your website	Yes	The Township hosts a municipal website ( <a href="https://www.andovertwp.org/">https://www.andovertwp.org/</a> ) which includes a municipal directory, announcements, and other community information.
Social media for hazard mitigation education and outreach	Yes	Facebook, Instagram.
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Police Dispatch Center
Natural disaster/safety programs in place for schools	Yes	Disaster/safety programs in/for schools
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

### 4.3.6 Community Classifications

Table 4-7 summarizes classifications for community programs available to Andover.





Table 4-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	Unknown	Unknown
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	5	2014
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	None	March 8, 2010
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 4.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 4-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 4-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate



## 4.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 4-1 is responsible for maintaining this information.

### 4.4.1 NFIP Statistics

Table 4-9 summarizes the NFIP policy and claim statistics for Andover.

Table 4-9. Andover NFIP Summary of Policy and Claim Statistics

# Policies	3
# Claims (Losses)	2
Total Loss Payments	\$ 303.65
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA 2024

### 4.4.2 Flood Vulnerability Summary

Table 4-10 provides a summary of the NFIP program in Andover.

Table 4-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	<p>Stretch of Hemlock Avenue in the Lake Lenape section of the Township where this is no drainage system in place. This also impacts Old Creamery Road due to no drainage. In the winter time due to no drainage there is a continuous icing condition which has to be addressed on a daily basis by the Township DPW. Flooding exacerbates the issue.</p> <p>Stretch of Pierce Road near Lafayette border which has no drainage system in place. Run-off continues to erode the sides of the road and the banks to the point</p>



NFIP Topic	Comments
	where tree root systems are exposed. Due to no drainage a continuous icing condition exists in the winter. Flooding exacerbates the issue.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	<p>At present we no longer have any specific properties involving structures which are prone to flooding issues. In the past we had a residence on Limecrest Road prone to flooding, however, the property owner has since taken measures to move the structure to a higher elevation on the property.</p> <p>Basement flooding occurs from time to time which then prompts requests for the fire department to respond and pump out basements. These records are available within our CAD system. These requests usually occur under an extreme amount of rain within a short period of time.</p>
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Any structures damaged from any type of weather event are reported to the construction / building official. The construction official / building official follows up on requests from either the fire department or police department as needed. Our Township uses the State of NJ Code Officials as a shared service.
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	No recent determinations made for Substantial Damage.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	One property located along Limecrest Road was mitigated by the property owner via moving the structure to a higher elevation. This was funded via the property owner.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	The flood maps do adequately address the flood risk based on where our lakes, rivers and streams are. However, any issue can arise at anytime based on improvements or developments being proposed in which we rely upon our professional services to address at the time of an application being proposed ( ie Land Use Board).
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	The Township Engineer which is a contracted position year to year.
Are any certified floodplain managers on staff in your jurisdiction?	Township Engineer
Do you have access to resources to determine possible future flooding conditions from climate change?	None known at this time.



NFIP Topic	Comments
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Training should always be ongoing and therefore this would never be turned down. As for the specific training needed this is not known at this time.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Services such as permit review, GIS and inspections fall within the Township Engineer and Land Use Board purview.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Improvements to an existing structure are defined by local ordinances and State code. An application process occurs and a review deems the application complete or not.
What are the barriers to running an effective NFIP program in the community, if any?	The biggest barrier is the public becoming complacent due to the frequency of a flooding occurrence.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	November 24, 1987
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 55 of the Local Ordinance
What is the date that your flood damage prevention ordinance was last amended?	July 11, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets the minimum requirements. Floodplain regulations are enforced via Local Ordinance Chapter 55 and compliance is monitored through the construction official and Township Engineer as needed.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Local ordinances in Chapter 55 have Floodplain Management Regulations along with the Land Use Board, Township Engineer and various other contracted professionals all review proposed plans for development and construction etc.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Our community would take into consideration the CRS program.

## 4.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 4-11 through Table 4-13.

Table 4-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0



	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	1	0	0	1
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	1	0	0	1
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	3	0	0	3
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 4-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 4-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Anticipated.					

## 4.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Andover's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 4.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 4-1 through Figure 4-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Andover has significant exposure. The maps show the location of potential new development, where available.



Figure 4-1. Andover Flood and Sinkhole Hazard Area Extent and Location Map

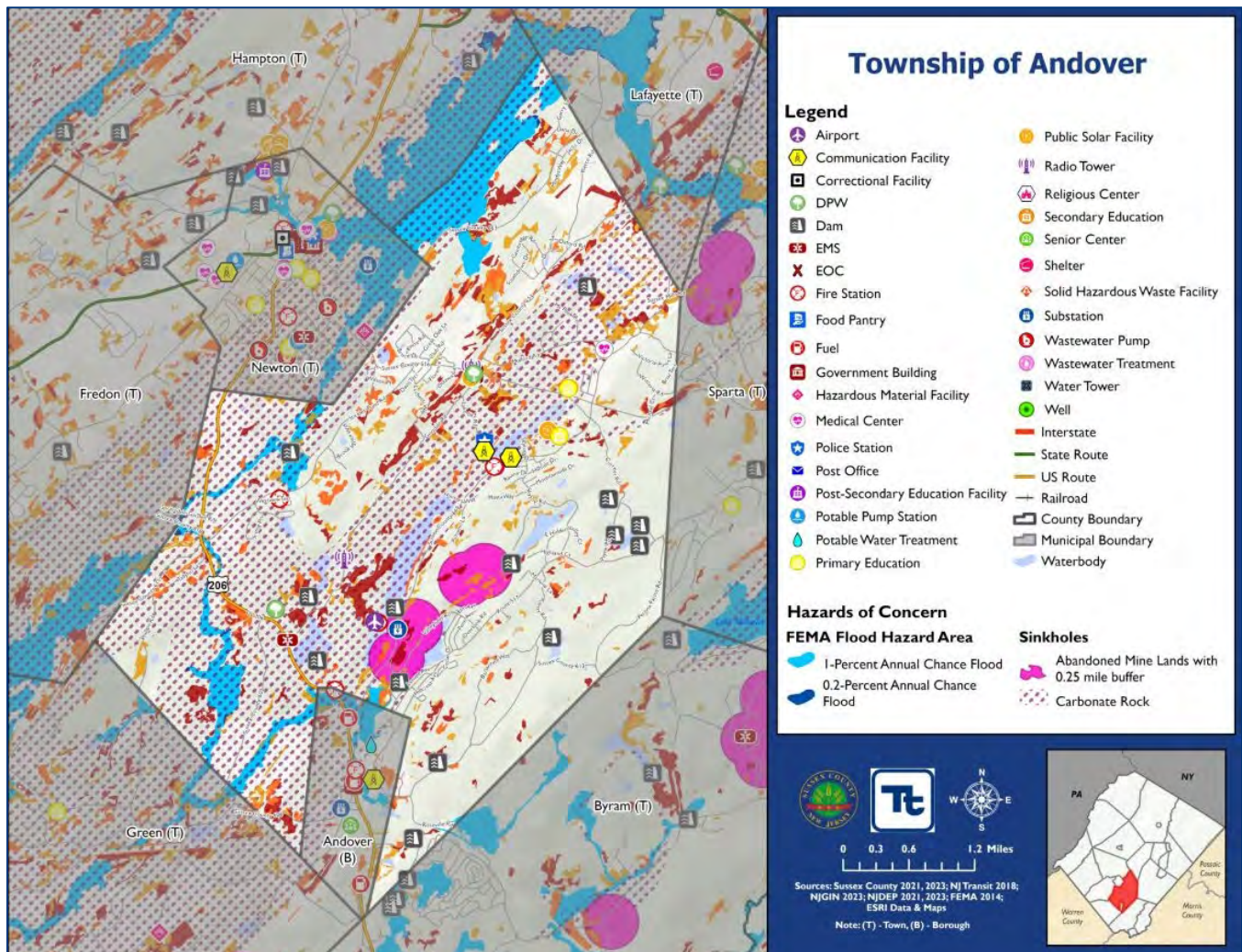




Figure 4-2. Andover Wildfire and HAZMAT Hazard Area Extent and Location Map

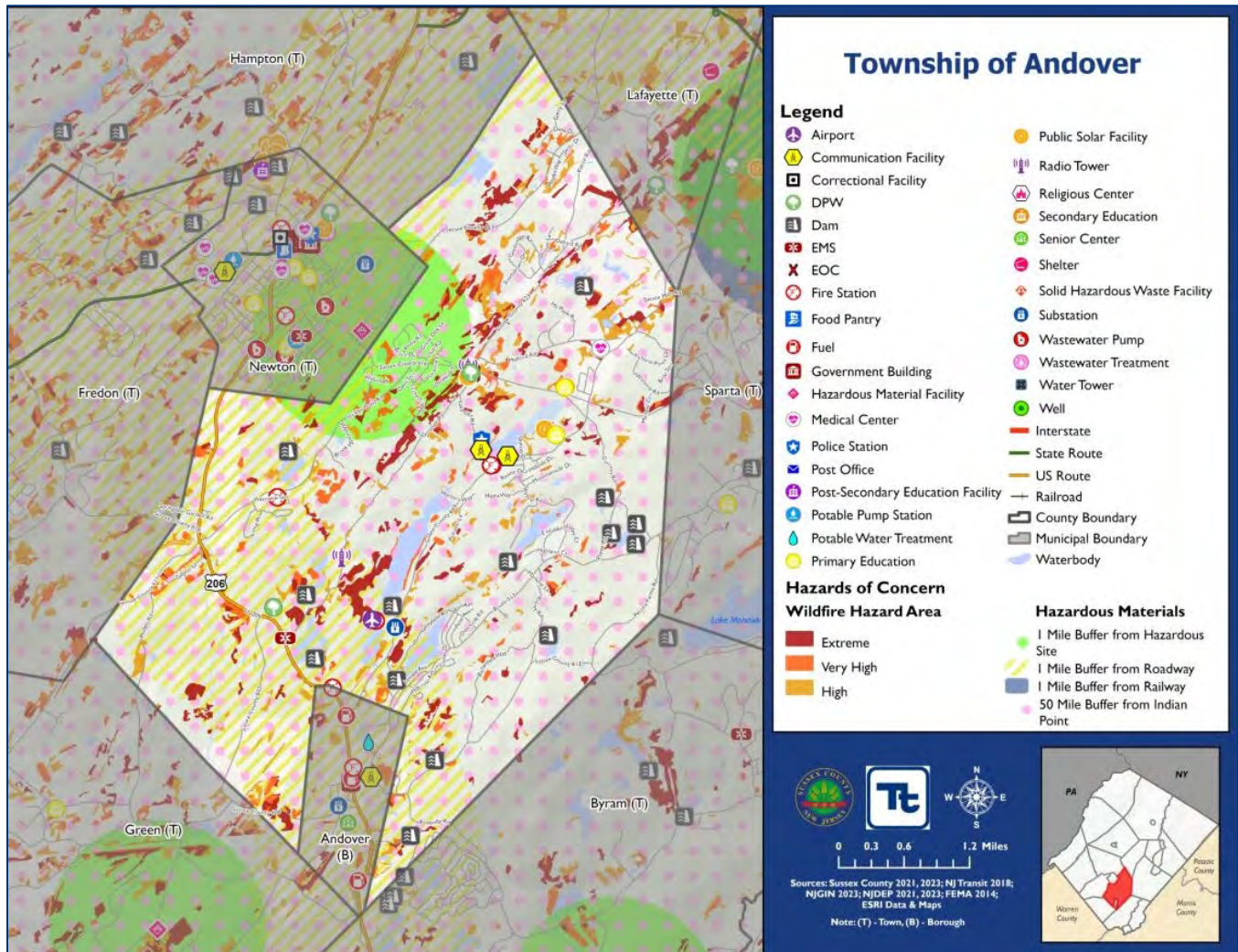
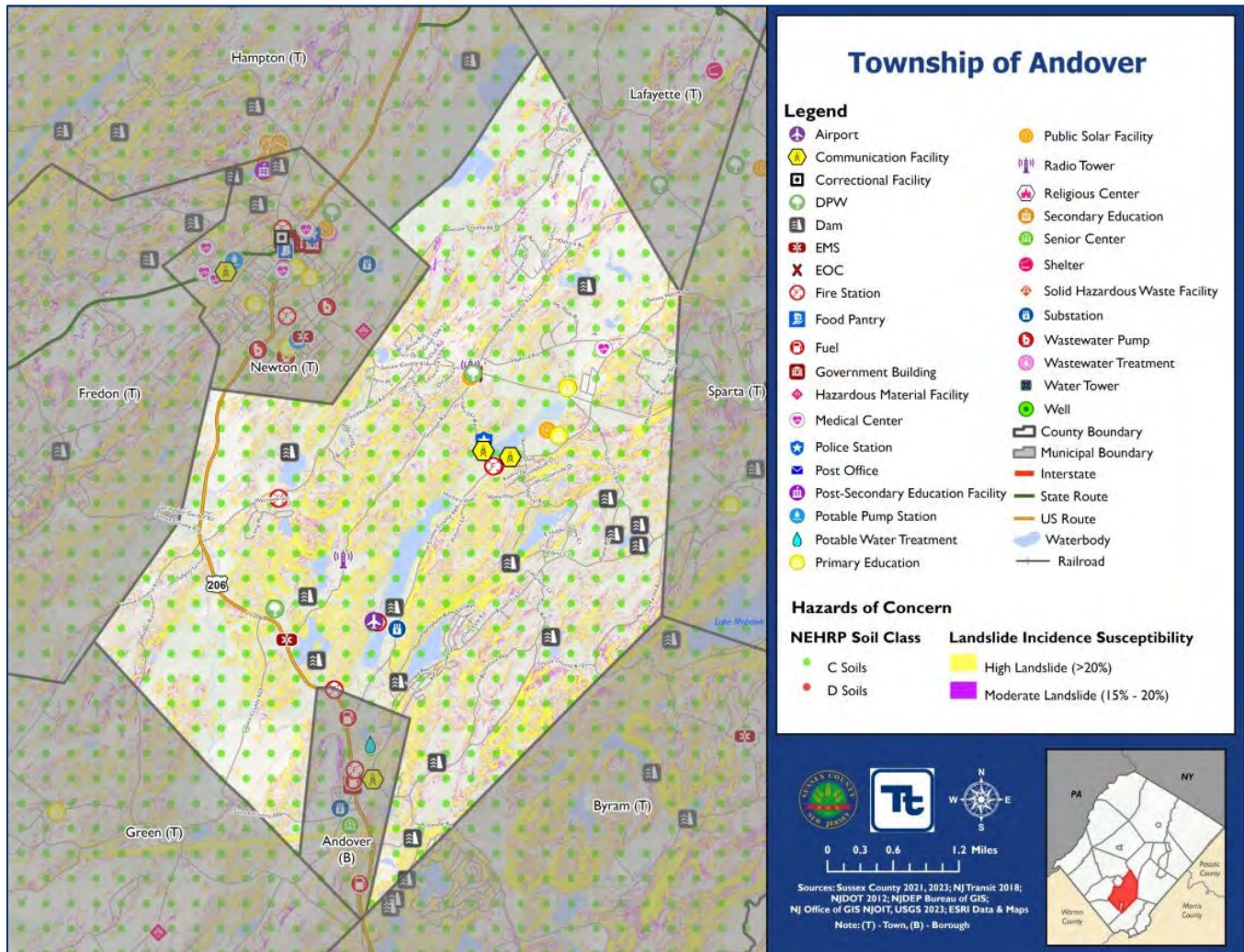




Figure 4-3. Andover NEHRP and Landslide Hazard Area Extent and Location Map





## 4.6.2 Hazard Event History

The history of natural and non-natural hazard events in Andover is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 4-14 provides details on loss and damage in Andover during hazard events since the last hazard mitigation plan update.

Table 4-14. Hazard Event History in Andover

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Andover
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	Township sustained a substantial tax revenue loss due to the closure of a long-term care facility specifically from the impact of Covid-19.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	No records found with CFO office.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	No records found with CFO office.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	No records found with CFO office

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 4.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Andover .



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Andover reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the following:

- The Township accepts the hazard rankings outlined in Table 4-15.

Table 4-15 shows Andover's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 4-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 4-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 4-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
There are no critical facilities in the 1% and/or 0.2% floodplain.					



Source: *Sussex County 2021, 2023; NJGIN 2023*

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Andover:

- Lake Lenape Dam
- Forest Lake Dam

### 4.6.4 Identified Issues

After review of Andover's hazard event history, hazard rankings, hazard location, and current capabilities, Andover identified the following vulnerabilities within the community:

- Residents have noted that there are drainage issues on Springdale Gardens Road. This has been an ongoing issue due to lack of funding to install an updated drainage system. There is flooding along the secondary road from runoff on State Highway (Rt 206) during severe storm events. The pitch of the road and lack of curbing causes the excess water to remain for days and weeks. There are large amounts of water which prevent residents from leaving their homes.
- The Township also has two high-hazard potential dams, the Lake Lenape Dam and Forest Lake Dam, within its jurisdiction. These structures have the potential to impact those living nearby and within inundation areas, as a rush of flood waters would overcome structures in the path of the dam failure.
- Stormwater flooding is a problem at Pierce Road and the intersection of Old Creamery Road and Hemlock Avenue. Currently, funding is limited or not available. The Township is under strict spending constraints due to losing a one million dollar ratable. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- The Township has drafted a Continuity of Operations Plan (COOP). The draft plan needs to be reviewed by stakeholders. A COOP is a policy and guidance document that ensures that essential functions for an agency or organization are continued in the event of an emergency. The COOP addresses emergencies from an all-hazards approach, including natural, manmade, or technological disasters.
- The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township has wildfire risk but is currently not part of the Firewise program.
- The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meet New Jersey's minimum requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard





Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Township's ordinance requires update.

- Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:
  - Whites Pond Dam (poor)
  - Hemlock Lake Dam (poor)
  - Lake Valentine Dam (poor)
  - Lake Aeroflex Dam (poor)
- Although the Township has flood exposure, the Township does not participate in the Community Rating System (CRS) program. By participating in the CRS program, the Township can reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management. Township residents which have flood insurance through the NFIP may see a decrease in flood insurance rates.
- Forest Lake Dam is a Class I High Hazard Dam that is located on Forest Lake. The dam is owned by the Forest Lakes Club. Failure of the dam could result in inundation of forested lands, densely populated areas, and local roadways including Forest Lake Drive and Club Lake Road, and potentially impact State Route 206. Although the dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Lake Lenape Dam is a Class I High Hazard Dam that is located on Lake Lenape. The dam is owned by the Lake Lenape Association Board of Trustees. Failure of the dam could result in inundation of densely populated areas and local roadways including Old Creamery Road, Lenape Avenue, Limecrest Road, and Sussex Avenue. Although the dam was last inspected in 2024 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 4.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 4.7.1 Past Mitigation Action Status

Table 4-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.



### 4.7.2 Additional Mitigation Efforts

Andover did not identify any additional mitigation efforts completed since the last HMP.





Table 4-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-AndoverT-001	Pierce Road Stormwater Retention Basin	Flood, Severe Weather	Engineer, Public Works	<b>Problem:</b> Stormwater flooding is a problem at Pierce Road. <b>Solution:</b> The Township will design and install a stormwater retention basin on Pierce Road.	1. No Progress 2. Currently funding is limited or not available. Township is under strict spending constraints due to losing a one million dollar ratable.	1. Include in update 2. The Township will conduct a feasibility assessment and explore funding opportunities to design and install a stormwater retention basin on Pierce Road. 3. Not applicable
2021-AndoverT-002	Old Creamery Rd & Hemlock Ave Stormwater Retention Basin	Flood, Severe Weather	Engineer, Public Works	<b>Problem:</b> Stormwater flooding is a problem at Old Creamery Road & Hemlock Avenue. <b>Solution:</b> The Township will design and install a stormwater retention basin on Old Creamery Road & Hemlock Avenue.	1. No Progress 2. Township is under strict spending limits currently due to loss of ratable totaling over one million dollars.	1. Include in update 2. The Township will conduct a feasibility assessment and explore funding opportunities to design and install a stormwater retention basin on Old Creamery Road and Hemlock Avenue. 3. Not applicable
2021-AndoverT-003	Incorporate Hazard Mitigation in Budgeting	All Hazards	OEM Director and Township Administrator	<b>Problem:</b> The Township requires funding to fund mitigation projects in house or provide match for grants. <b>Solution:</b> The Township will budget for future mitigation projects in both the Township budget and Capital Improvement Budget.	1. No Progress 2. Township has significant financial constraints due to closing of facility causing loss of revenue over 1 million dollars.	1. Discontinued 2. Not applicable 3. Township has significant financial constraints due to closing of facility causing loss of revenue over 1 million dollars.
2021-AndoverT-004	Resilience Committee and Advisor	All Hazards	OEM Director, Township Administrator	<b>Problem:</b> The Township requires better coordination and staff knowledge on community resilience to inform hazard	1. No Progress. 2. Overly challenging to find volunteers at the municipal level to fill other various positions within the Township currently.	1. Discontinued 2. Not applicable 3. Overly challenging to find volunteers at the municipal level to fill



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				mitigation planning and project implementation.  <b>Solution:</b> The Township will establish a community resilience committee and advisor.		other various positions within the Township currently.
2021-AndoverT-005	Continuity of Operations Plan	All Hazards	OEM, Administration	<b>Problem:</b> The Township lacks a Continuity of Operations Plan.  <b>Solution:</b> The Township will develop and adopt a Continuity of Operations Plan.	1. In Progress 2. Draft copy of Continuity of Operations Plan completed. Same to be reviewed by stakeholders at a future date to be determined.	1. Include in update 2. The Township will work with stakeholders to review the Draft Continuity of Operations Plan to finalize and implement the plan. 3. Not applicable
2021-AndoverT-006	FireWise Program	Wildfire	Township Fire and OEM	<b>Problem:</b> The Township has wildfire risk but is not enrolled in the FireWise program.  <b>Solution:</b> The Township will enroll and maintain status within the FireWise program. Will seek to enroll and work with the Andover Twp Fire Department on putting information on their website along with the Township's website.	1. In Progress 2. The Township has within a very close proximity the NJ State Forest Fire HQ and works currently in partnership with them and the local fire department to bring about educational information regarding wilderness fires.	1. Include in update 2. The Township will continue to work with the NJ State Forest Fire HQ to enroll and maintain status participation in the FireWise program. The Township Fire Department make sure the necessary information is accessible by the community on the Township website. 3. Not applicable
2021-AndoverT-007	Hazard Outreach Improvements	All Hazards	OEM	<b>Problem:</b> The Township's outreach on hazard mitigation topics requires expansion.  <b>Solution:</b> The Township will expand mitigation education and outreach efforts through	1. No Progress 2. Continue to utilize various social media platforms to educate the community.	1. Include in update 2. The Township will continue to utilize various social media platforms to educate the community on hazard information. 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				handouts, newsletters, social media, and the Township website.		
2021-AndoverT-008	Disaster Debris Management Plan	Extreme Weather	DPW	<b>Problem:</b> The Township lacks a Disaster Debris Management Plan.  <b>Solution:</b> The Township will develop and adopt a Disaster Debris Management Plan.	1. No Progress 2. Considered to be a dynamic process due to various regulations concerning debris removal	1. Include in update 2. The Township will review the mitigation needs for debris removal and develop a Disaster Debris Management Plan. 3. Not applicable
2021-AndoverT-009	Flood Damage Prevention Ordinance Update	Flood	FPA, Administration	<b>Problem:</b> The Township's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.  <b>Solution:</b> The Township will update the Flood Damage Prevention Ordinance to include the freeboard requirement.	1. No Progress 2. continuing to review with Township engineer.	1. Include in updateT 2. The Township will continue to work with the Township Engineer to update the Flood Damage Prevention Ordinance to include the freeboard requirement. 3. Not applicable



### 4.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Andover participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Andover would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 4-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 4-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 4-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X			X		X	X
Disease Outbreak	X			X			X			X
Drought	X			X			X			X
Earthquake	X			X			X			X
Flood	X	X		X	X		X		X	X
Geological Hazards	X			X			X			X
Hazardous Materials	X			X			X			X
Hurricane	X			X			X			X
Infestation	X			X			X			X
Nor'easter	X			X			X			X
Severe Weather	X	X		X			X		X	X
Severe Winter Weather	X			X			X			X
Wildfire	X			X			X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 4-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-AndoverTwp-01	Drainage Improvement Study to Springsdale Gardens Road	1	1	1	1	1	1	0	0	0	1	1	1	1	1	11	High
2025-AndoverTwp-02	Dam Owner Partnership	1	1	1	1	0	1	1	0	1	1	1	1	1	1	12	High
2025-AndoverTwp-03	Flood Prone Roads	1	1	1	1	1	1	0	0	0	1	1	1	1	1	11	High
2025-AndoverTwp-04	Continuity of Operations Plan	1	0	1	1	1	1	0	0	1	1	1	0	1	1	10	Medium
2025-AndoverTwp-05	Firewise Program Participation	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-AndoverTwp-06	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-AndoverTwp-07	Disaster Debris Management Plan	1	0	0	1	1	0	1	0	1	1	1	1	1	1	10	Medium
2025-AndoverTwp-08	Code Coordinated Ordinance	1	1	1	1	1	1	0	0	1	1	1	1	1	1	12	High
2025-AndoverTwp-09	NJDEP Dam Repair	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-AndoverTwp-10	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-AndoverTwp-11	Forest Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-AndoverTwp-12	Lake Lenape Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).





## Action 2025-AndoverTwp-01. Drainage Improvement Study to Springsdale Gardens Road

<b>Lead Agency:</b>	Township Engineer		
<b>Supporting Agencies:</b>	Public Works		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	Residents have noted that there are drainage issues on Springsdale Gardens Road. This has been an ongoing issue due to lack of funding to install an updated drainage system. There is flooding along the secondary road from runoff on State Highway (Rt 206) during severe storm events. The pitch of the road and lack of curbing causes the excess water to remain for days and weeks. There are large amounts of water which prevent residents from leaving their homes.		
<b>Description of the Solution:</b>	The Township Engineer will conduct a drainage improvement study to Springsdale Gardens Road to address flooding and runoff issues. Once potential methods have been identified, the most cost-effective option will be implemented by Public Works.		
<b>Estimated Cost:</b>	High (> \$100,000)		
<b>Potential Funding Sources:</b>	HMGP, BRIC, Township budget		
<b>Implementation Timeline:</b>	Long Term (5+yrs.)		
<b>Goals Met:</b>	1, 2, 3		
<b>Benefits:</b>	Future mitigation projects may be identified that will further increase overall community resiliency to flooding and other hazard events.		
<b>Impact on Socially Vulnerable Populations:</b>	Areas vulnerable to flooding will be made aware to Township leadership and first responders which can place an emphasis on controlled future development. Socially vulnerable populations located in these at risk areas will be protected against flood impacts through the identification and implementation of flood mitigation actions.		
<b>Impact on Future Development:</b>	Flood insurance costs may decrease as a result of the study and reduced flood exposure.		
<b>Impact on Critical Facilities/Lifelines:</b>	Transportation routes, such as Springsdale Gardens Road will be more likely to remain open if flooding is mitigated along them.		
<b>Impact on Capabilities:</b>	This study will identify opportunities for mitigation funding to be spent in the areas in which it is most needed to increase resiliency and decrease damage from flood events.		
<b>Climate Change Considerations:</b>	Consideration should be taken to ensure any projects conducted have accounted for increased extreme rainfall events.		
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>		
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Problem persists	
	Remove road	Not an option, costly	
	Relocate residents	Not publically accepted, costly.	



## Action 2025-AndoverTwp-02. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM																
<b>Supporting Agencies:</b>	NJDEP, Dam Owners																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township also has two high-hazard potential dams, the Lake Lenape Dam and Forest Lake Dam, within its jurisdiction. These structures have the potential to impact those living nearby and within inundation areas, as a rush of flood waters would overcome structures in the path of the dam failure.																
<b>Description of the Solution:</b>	The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5, 7																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Township will be unaware of any safety concerns for the dam or its condition</td></tr><tr><td>Utilize information from NJDEP</td><td>Owners may not be required to submit a safety plan to the State</td></tr><tr><td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr></table>	Action	Evaluation	No Action	Township will be unaware of any safety concerns for the dam or its condition	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory								
Action	Evaluation																
No Action	Township will be unaware of any safety concerns for the dam or its condition																
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Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory																



## Action 2025-AndoverTwp-03. Flood Prone Roads

<b>Lead Agency:</b>	Engineer																
<b>Supporting Agencies:</b>	Public Works																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Stormwater flooding is a problem at Pierce Road and the intersection of Old Creamery Road and Hemlock Avenue. Currently, funding is limited or not available. The Township is under strict spending constraints due to losing a one million dollar ratable. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.																
<b>Description of the Solution:</b>	The Township Engineer will conduct a feasibility assessment and explore funding opportunities to design and install a stormwater retention basin on Pierce Road and at the intersection of Old Creamery Road and Hemlock Avenue. Once evaluated, the most cost-effective method will be implemented by Public Works.																
<b>Estimated Cost:</b>	High (> \$100,000)																
<b>Potential Funding Sources:</b>	HMGP, BRIC, Township budget																
<b>Implementation Timeline:</b>	Short Term (<5yrs.)																
<b>Goals Met:</b>	2																
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Township along Pierce Road and the intersection of Old Creamery Road and Hemlock Avenue.																
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations, such as the elderly or disabled, who reside or use Pierce Road, Old Creamery Road, and Hemlock Avenue will be protected against flood concerns. Socially vulnerable populations have a higher risk to flood impacts due to the challenges with responding and evacuating capabilities.																
<b>Impact on Future Development:</b>	Future development planned for Pierce Road, Old Creamery Road, and Hemlock Avenue will be protected against flood and stormwater runoff.																
<b>Impact on Critical Facilities/Lifelines:</b>	Pierce Road is critical infrastructure for the Township. This action would ensure it is safely operable during a severe storm or flood event.																
<b>Impact on Capabilities:</b>	This action would strengthen EMS and first responder capabilities to access neighborhoods and homes by ensuring Pierce Road, Old Creamery Road, and Hemlock Avenue are functional during a flood event.																
<b>Climate Change Considerations:</b>	Climate change is increasing the severity and frequency of flood and storm events. This action will protect the surrounding area from future flood events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Problem persists</td></tr><tr><td>Remove road</td><td>Not an option, costly</td></tr><tr><td>Raise the roadway</td><td>Costly</td></tr></table>	Action	Evaluation	No action	Problem persists	Remove road	Not an option, costly	Raise the roadway	Costly								
Action	Evaluation																
No action	Problem persists																
Remove road	Not an option, costly																
Raise the roadway	Costly																



## Action 2025-AndoverTwp-04. Continuity of Operations Plan

<b>Lead Agency:</b>	OEM										
<b>Supporting Agencies:</b>	Township Administration										
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials         </div> <div> <input checked="" type="checkbox"/> Hurricane  <input checked="" type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire         </div>										
<b>Description of the Problem:</b>	The Township has drafted a Continuity of Operations Plan (COOP). The draft plan needs to be reviewed by stakeholders. A COOP is a policy and guidance document that ensures that essential functions for an agency or organization are continued in the event of an emergency. The COOP addresses emergencies from an all-hazards approach, including natural, manmade, or technological disasters.										
<b>Description of the Solution:</b>	The Township will work with stakeholders to review the Draft Continuity of Operations Plan to finalize and implement the plan.										
<b>Estimated Cost:</b>	Low (< \$10,000)										
<b>Potential Funding Sources:</b>	Township budget										
<b>Implementation Timeline:</b>	Short Term (<5yrs.)										
<b>Goals Met:</b>	3, 5, 6										
<b>Benefits:</b>	This action will ensure critical facilities and community lifelines remain open and operational before, during, and after an emergency event.										
<b>Impact on Socially Vulnerable Populations:</b>	The implementation of the COOP will assist in ensuring government programs which support socially vulnerable populations will be operational in the event of an emergency.										
<b>Impact on Future Development:</b>	Future development will be supported by continual government operations in the event of an emergency.										
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities and lifelines will stay in operation during a hazard event by following the Township official plans for continuity of operations.										
<b>Impact on Capabilities:</b>	This plan will strengthen the Township's capabilities to remain safely operable during the time of a hazard event.										
<b>Climate Change Considerations:</b>	Climate change is increasing the severity and frequency of natural hazard events, such as severe storms and flooding. This action would help to lessen the impacts of future hazard events on Township operation and capabilities.										
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP)         </div>										
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES)         </div>										
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th><th>Evaluation</th></tr> </thead> <tbody> <tr> <td>No action</td><td>Problem persists</td></tr> <tr> <td>Adopt without stakeholder review</td><td>Not an option, risk of inaccuracy.</td></tr> <tr> <td>Delay adoption of plan</td><td>Risk to hazards during events.</td></tr> </tbody> </table>	Action	Evaluation	No action	Problem persists	Adopt without stakeholder review	Not an option, risk of inaccuracy.	Delay adoption of plan	Risk to hazards during events.		
Action	Evaluation										
No action	Problem persists										
Adopt without stakeholder review	Not an option, risk of inaccuracy.										
Delay adoption of plan	Risk to hazards during events.										



## Action 2025-AndoverTwp-05. Firewise Program Participation

<b>Lead Agency:</b>	Fire Department		
<b>Supporting Agencies:</b>	Township Administration		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input checked="" type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township has wildfire risk but is currently not part of the Firewise program.		
<b>Description of the Solution:</b>	The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up outreach meetings.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	1, 2, 3, 4, 5		
<b>Benefits:</b>	The national Firewise USA recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township may be located within very high and high fuel risk areas for wildfires. Participation in the Firewise Program will assist in the Township's efforts to educate populations on how to increase the ignition resistance of their home and property.		
<b>Impact on Future Development:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made. This assessment may identify areas which the Township would like to restrict future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made, which could include relocating various critical facilities or lifelines.		
<b>Impact on Capabilities:</b>	This action will increase wildfire risk reduction and response capabilities for the Township.		
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.		
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</div>		
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input checked="" type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	The Township does not participate in the Firewise Program	
	Complete half of the program requirements	The Township would not be eligible to participate in the Firewise Program	



	Participate in the program, but do not utilize resources	The Township would miss opportunities to strengthen communication and safety skills
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## Action 2025-AndoverTwp-06. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Township by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Township.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Township.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-AndoverTwp-07. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>			Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available						
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-AndoverTwp-08. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Construction Official, Building Department, Township Administration, NFIP State Coordinator, FEMA Regional Office																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	<p>The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meet New Jersey's minimum requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Township's ordinance requires update.</p>																
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.</p>																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5,7																
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>																
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>																
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>																
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>																
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>																
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem exists</td></tr></table>	Action	Evaluation	No Action	Current problem exists												
Action	Evaluation																
No Action	Current problem exists																



	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage



## Action 2025-AndoverTwp-09. NJDEP Dam Repair

<b>Lead Agency:</b>	Engineer						
<b>Supporting Agencies:</b>	Dam Manager, NJDEP Bureau of Dam Safety, County Engineer						
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input type="checkbox"/> Nor'easter  <input type="checkbox"/> Severe Weather  <input type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>						
<b>Description of the Problem:</b>	<p>Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:</p> <ul style="list-style-type: none"> <li>Whites Pond Dam (poor)</li> <li>Hemlock Lake Dam (poor)</li> <li>Lake Valentine Dam (poor)</li> <li>Lake Aeroflex Dam (poor)</li> </ul>						
<b>Description of the Solution:</b>	The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.						
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected						
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget						
<b>Implementation Timeline:</b>	Within 5 years						
<b>Goals Met:</b>	1, 2, 3						
<b>Benefits:</b>	Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.						
<b>Impact on Socially Vulnerable Populations:</b>	The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.						
<b>Impact on Future Development:</b>	Future development downstream of dams will also be protected from dam failure.						
<b>Impact on Critical Facilities/Lifelines:</b>	Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.						
<b>Impact on Capabilities:</b>	Not applicable						
<b>Climate Change Considerations:</b>	Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.						
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Local Plans and Regulations (LPR)  <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input checked="" type="checkbox"/> Education and Awareness Programs (EAP) </div> </div>						
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input checked="" type="checkbox"/> Public Information (PI) </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input checked="" type="checkbox"/> Structural Flood Control Projects (SP)  <input type="checkbox"/> Emergency Services (ES) </div> </div>						
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low						
<b>Alternatives:</b>	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">Action</th><th style="width: 50%;">Evaluation</th></tr> </thead> <tbody> <tr> <td>No Action</td><td>Risk of dam failure remains or increases over time</td></tr> </tbody> </table>			Action	Evaluation	No Action	Risk of dam failure remains or increases over time
Action	Evaluation						
No Action	Risk of dam failure remains or increases over time						



	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access
	Remove all dams	Without proper analysis, dam removal may increase flooding risk





## Action 2025-AndoverTwp-10. Community Rating System Program Participation

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Township Administration, Emergency Management		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Although the Township has flood exposure, the Township does not participate in the Community Rating System (CRS) program. By participating in the CRS program, the Township can reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management. Township residents which have flood insurance through the NFIP may see a decrease in flood insurance rates.		
<b>Description of the Solution:</b>	The Township will evaluate the benefits and costs of participating in CRS program. If feasible, the Township will join the program and begin implementing standards that exceed NFIP requirements.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	The participation in the CRS benefits communities by offering discounted rates for flood insurance premiums, which addresses the three goals of the program: reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management.		
<b>Impact on Socially Vulnerable Populations:</b>	The participation in the Community Rating System (CRS) benefits communities by offering discounted rates for flood insurance premiums, which may be more affordable for some socially vulnerable populations.		
<b>Impact on Future Development:</b>	Future development would need to adhere to any increased standards established as part of joining the CRS program such as increased freeboard and elevation certificate requirements.		
<b>Impact on Critical Facilities/Lifelines:</b>	Not applicable		
<b>Impact on Capabilities:</b>	This action would enhance the Township's floodplain management capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These changes are likely to increase flood risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		-
	Adopt aspects of the CRS program into the floodplain management program		Increased floodplain management capabilities but no reduction in flood insurance premiums
	Abandon any floodplain management practices not required by NFIP		Reduction in floodplain management capabilities and increase in risk.



## Action 2025-AndoverTwp-11. Forest Lake Dam Rehab

<b>Lead Agency:</b>	Forest Lakes Club																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Forest Lake Dam is a Class I High Hazard Dam that is located on Forest Lake. The dam is owned by the Forest Lakes Club. Failure of the dam could result in inundation of forested lands, densely populated areas, and local roadways including Forest Lake Drive and Club Lake Road, and potentially impact State Route 206. Although the dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Forest Lakes Club to complete an engineering study of Forest Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Forest Lakes Club will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Forest Lake as an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Forest Lake as an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Forest Lake as an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-AndoverTwp-12. Lake Lenape Dam Rehab

<b>Lead Agency:</b>	Lake Lenape Association Board of Trustees																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Lake Lenape Dam is a Class I High Hazard Dam that is located on Lake Lenape. The dam is owned by the Lake Lenape Association Board of Trustees. Failure of the dam could result in inundation of densely populated areas and local roadways including Old Creamery Road, Lenape Avenue, Limecrest Road, and Sussex Avenue. Although the dam was last inspected in 2024 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Lake Lenape Association Board of Trustees to complete an engineering study of Lake Lenape Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Lake Lenape Association Board of Trustees will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>															
	No Action	Current problem continues															
	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Lenape as an environmental and recreational resource.															



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## 5. BOROUGH OF BRANCHVILLE

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Borough of Branchville with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Branchville, describes who participated in the planning process, assesses Branchville's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 5.1 HAZARD MITIGATION PLANNING TEAM

The Borough of Branchville identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Borough departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 5-1 summarizes Borough officials who participated in the development of the annex and in what capacity. Additional documentation of the Borough's planning activities through Planning Partnership meetings is included in Volume I.

Table 5-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Jeff Lewis, OEM Coordinator Address: 5 Main Street, P.O. Box 840, Branchville, NJ 07826 Phone Number: 973-479-7203 Email: Jlewis310@embaraqmail.com	Name/Title: Kathryn Leissler, Clerk Address: 5 Main Street, P.O. Box 840, Branchville, NJ 07826 Phone Number: 973-948-4629 Email: branchvilleclerk@yahoo.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Dave Simmons, Floodplain Administrator Address: 17 Plains Road, Augusta, NJ 07822 Phone Number: 973-948-6463 Email: -	
<b>Additional Contributors</b>	
Name/Title: Jeff Lewis, OEM Coordinator Method of Participation: Provided previous hazard history information and hazard mitigation capabilities of the Borough. Provided information on building permits and planned development. Provided NFIP information. Participated in planning partnership meetings and the mitigation action workshop. Completed final review of the draft annex and completed sign-off sheet.	
Name/Title: Dave Simmons, Floodplain Administrator Method of Participation: Reviewed and signed off on the final draft annex.	
Name/Title: Harold Pellow, Municipal Engineer Method of Participation: Reviewed and signed off on the final draft annex.	
Name/Title: Rich Bizik, Construction Official Method of Participation: Reviewed and signed off on the final draft annex.	



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Name/Title: Anthony Frato, Mayor

Method of Participation: Completed final review of the draft annex and completed sign-off sheet.

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Name/Title: Darren Hagerty, Public Works Superintendent

Method of Participation: Completed final review of the draft annex and completed sign-off sheet.

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Name/Title: Kathryn Leissler, Clerk

Method of Participation: Completed final review of the draft annex and completed sign-off sheet.

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Name/Title: Mike Clune, Planner

Method of Participation: Completed final review of the draft annex and completed sign-off sheet.

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## 5.2 COMMUNITY PROFILE

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The Borough of Branchville is located in northwestern Sussex County and surrounded entirely by the Township of Frankford. Culvers Creek and Dry Brook both flow through the Borough. The Borough has a total area of 0.6 square miles. According to the U.S. Census, the 2020 population for Branchville was 791, a 5.9-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 0.6-percent of the population is 5 years of age or younger, 0.6-percent is 65 years of age or older, 1.5-percent is non-English speaking, 0.5-percent is below the poverty threshold, and 0.5-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Borough of Branchville, 28-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 5.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Branchville performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events





For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Branchville to identify opportunities for integrating mitigation concepts into ongoing Borough procedures.

### 5.3.1 Planning and Regulatory Capability and Integration

Table 5-2 summarizes the planning and regulatory tools that are available to Branchville.

Table 5-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019; State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)	State & Local	Building Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>The building code provides guidance on how to design, build, and operate buildings. Modern building codes lead to major reductions in property losses from natural disasters.</i>				
<b>Zoning/Land Use Code</b>	Yes	State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, Effective 8/1/1976, 40-55D-62: 49 (Chapter 123-Zoning).	Local	Mayor and Council
How has or will this be integrated with the HMP and how does this reduce risk? <i>Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. New zoning procedures recognize natural hazard areas.</i>				
<b>Subdivision Code</b>	Yes	Grant of power; referral of proposed ordinance; county planning board approval a. P.L.1975, c.291 (C.40:55D-47): 40:55D-37; Municipal Land Use Law. NJ Statute 40:27-6.2 (Chapter 104-Subdivision of Land)	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Site Plan Code</b>	Yes	Municipal Land Use Law, NJ Statute 40:27-6.2 (Chapter 97-3)	Yes	Planning Board

How has or will this be integrated with the HMP and how does this reduce risk?

*Dictated by the Municipal Land Use Law which sets forth minimum requirements for plans, etc., timeframes for development review. The board of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.*

<b>Stormwater Management Code</b>	Yes	Title 7 of the NJ Administrative Code, N.J.A.C. 7:8; Chapter 121-6, Adopted 3/15/2006 by Ord. No. 3-2006	Local	Mayor and the Council; Stormwater Engineer: Harold Pellow and Associates
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How has or will this be integrated with the HMP and how does this reduce risk?

*Sets minimum standards for collection of stormwater for new development to help reduce stormwater flooding.*

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*

<b>Growth Management</b>	Yes	State Development & Redevelopment Plan (Plan Endorsement); Zoning Ordinance; Chapter 123-Zoning	State, Local	State Development & Redevelopment Plan (Plan Endorsement); Zoning Ordinance; Chapter 123-Zoning
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*How has or will this be integrated with the HMP and how does this reduce risk?*

*Provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy.*

*New zoning procedures recognize natural hazard areas.*

<b>Environmental Protection Ordinance(s)</b>	No	-	-	-
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*How has or will this be integrated with the HMP and how does this reduce risk?*

<b>Flood Damage Prevention Ordinance</b>	Yes	NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52); National Flood Control Act of 1968 (NFIP), Adopted in 2007 and amended effective 6/20/2016; Chapter 64-Flood Damage Prevention	Local	Construction Official
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*How has or will this be integrated with the HMP and how does this reduce risk?*

*The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*addition, participation in the NFIP requires a floodplain ordinance. Regulations for the Flood Control Hazards Act were adopted in 2007 and amended effective June 20, 2016.*

*The Mayor and Council are responsible for this ordinance in compliance with Chapter 64- Flood Damage Prevention. It is the purpose of this chapter, to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to Protect human life and health; Minimize expenditure of public money for costly flood control projects; Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; Minimize prolonged business interruptions; Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard; Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas; Ensure that potential buyers are notified that property is in an area of special flood hazard; and Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*

*Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.*

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Emergency Management Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other: Municipal Separate Storm Sewer System</b>	Yes	Chapter 144-Sewage Disposal Systems, Individual.	Local	Mayor and Council
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How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of Chapter 144 is to apply the standards for the Construction of Individual Subsurface Disposal Systems. It requires permits for locating, constructing, or altering individual sewage disposal systems.*

<b>Other: Special Purpose Ordinances (i.e. sensitive areas, steep slope)</b>	Yes	Chapter 111-Trees and Shrubbery; Chapter 131-Flooding and Standing Water	Local	Borough Administration
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How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of Chapter 111 is to require permits for tree maintenance, chemical sprays, removal, and more for trees and shrubbery.*

*The purpose of Chapter 131 is to regulate the creation or maintenance of standing or flooding waters, that are defined as unsanitary conditions or nuisances.*

#### PLANNING DOCUMENTS

<b>General/Comprehensive Plan</b>	Yes	Borough of Branchville Master Plan, 2018	Local	Mayor and Council
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How has or will this be integrated with the HMP and how does this reduce risk?

*This Master Plan is intended to provide direction to elected and appointed officials, the general citizenry, landowners, developers, and other area governmental entities for short-term and long-term growth and development within Vernon. It is a policy guide for community development decisions, community facility planning and budgeting, and a comprehensive guide for the future development of housing, employment, and cultural and educational opportunities for the Vernon community. The plan must be able to respond to changing conditions such as increased population and demand for public services, housing supply, legislative policies, technological development, and economic circumstances.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Capital Improvement Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Disaster Debris Management Plan</b>	Yes	Disaster Debris Management Plan, 2018	Local	Public Works
How has or will this be integrated with the HMP and how does this reduce risk? <i>Since the last HMP update, the Borough has developed a Disaster Debris Management plan that can be used to properly manage debris following a Severe Weather event and flooding. This plan provides specific guidance for municipal and business owners on how to determine what needs to be done with excess debris.</i>				
<b>Floodplain Management or Watershed Plan</b>	Yes	Water Resources Plan for the Delaware River Basin (Basin Plan), 2004	County	Mayor and Council
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Borough is included in the Basin Plan, which is a 30-year goal-based framework to guide governmental and non-governmental stakeholders whose actions may affect water resources in the Delaware River Basin. This plan is a product of a four-year stakeholder process and the establishment of a broad-based Watershed Advisory Council.</i>				
<b>Stormwater Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Transportation Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Agriculture Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Climate Action/ Resilience/Sustainability Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Tourism Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Business/ Downtown Development Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b> How has or will this be integrated with the HMP and how does this reduce risk? <i>The local EOP is County and State approved and was last updated in 2023. It is scheduled to be updated in 2025.</i>	Yes	Local Emergency Operation Plan, 2023	County and State	Public Works, OEM
<b>Continuity of Operations Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Substantial Damage Response Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Threat and Hazard Identification and Risk Assessment</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Post-Disaster Recovery Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Public Health Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 5.3.2 Development and Permitting Capability

Table 5-3 summarizes the capabilities of Branchville to oversee and track development.

Table 5-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	The Zoning Department is responsible for issuing development permits.
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain development permits are issued.
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	Yes	The Borough completed a Housing Element and a buildable lands inventory.
Describe the level of buildout in your jurisdiction.	N/A	There is available space for build-out within the Borough.

### 5.3.3 Administrative and Technical Capability

Table 5-4 summarizes potential staff and personnel resources available to Branchville and their current responsibilities that contribute to hazard mitigation.

Table 5-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		





Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Planning Board	Yes	Planning Board/Zoning Board of Adjustment of the Borough of Branchville. The Board has nine members. The Board is authorized to adopt bylaws governing its procedural operation; make and adopt and from time to time amend a Master Plan; administer the provisions of the Land Subdivision Ordinance and Site Plan Review Ordinance; hear applications for conditional uses and, in proper cases, to approve conditional use permits in accordance with provisions of the Zoning Chapter; participate in the preparation and review of programs or plans; among other authorizations. The Planning Board/Zoning Board of Adjustment shall exercise, to the same extent and subject to the same restrictions, all the powers of a Zoning Board of Adjustment.
Zoning Board of Adjustment	No	See above
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	The Department of Public Works includes Roads, Water, and Sewer divisions. The Department also conducts snow removal, brush collection, and maintains the Borough's sewage treatment plant.
Construction/Building/Code Enforcement Department	Yes	The Construction Office is within the Zoning Department. The Construction Official enforces the Uniform Construction Code.
Emergency Management/Public Safety Department	Yes	The Borough has an Office of Emergency Management, located within the Office of Emergency Services. The OEM works with the Blue Ridge Rescue Squad, the Branchville Fire Department, and any other necessary agencies in the times of power outages or other emergencies.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	Mayor, Council, OEM, Fire Chief
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Mayor and Council



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Engineers or professionals trained in building or infrastructure construction practices	Yes	Mayor and Council
Planners or engineers with an understanding of natural hazards	Yes	Mayor and Council
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	Yes	Mayor and Council
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Mayor and Council
Emergency manager	Yes	Office of Emergency Management
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Stormwater Engineer: Harold Pellow and Associates

### 5.3.4 Fiscal Capability

Table 5-5 summarizes financial resources available to Branchville.

Table 5-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No



Financial Resources	Accessible or Eligible to Use? (Yes/No)
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 5.3.5 Education and Outreach Capability

Table 5-6 summarizes the education and outreach resources available to Branchville.

Table 5-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Clerk, Mayor, and Office of Emergency Management
Personnel skilled or trained in website development	Yes	Clerk, outside contractor
Hazard mitigation information available on your website	Yes	If needed, flooding and hazard events can be added.
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Office of Emergency Management, Reverse 911; Borough Clerk
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Borough newsletter

### 5.3.6 Community Classifications

Table 5-7 summarizes classifications for community programs available to Branchville.

Table 5-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	6/10	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable



### 5.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 5-8 summarizes the adaptive capacity for each identified hazard of concern and the Borough’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 5-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

## 5.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 5-1 is responsible for maintaining this information.

### 5.4.1 NFIP Statistics

Table 5-9 summarizes the NFIP policy and claim statistics for Branchville.

Table 5-9. Branchville NFIP Summary of Policy and Claim Statistics

# Policies	3
# Claims (Losses)	9
Total Loss Payments	\$57,588.67
# Repetitive Loss Properties (NFIP definition)	2



# Policies	3
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA 2024

## 5.4.2 Flood Vulnerability Summary

Table 5-10 provides a summary of the NFIP program in Branchville.

Table 5-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Areas prone to flooding in the Borough are the Dry Brook and Culver Brook areas.
Do you maintain a list of properties that have been damaged by flooding?	Yes, the Borough maintains a list at this time.
Do you maintain a list of property owners interested in flood mitigation?	No, not at this time.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No, not at this time.
How do you make Substantial Damage determinations?	The Construction Official is responsible for making these determinations.
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown at this time.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None have been mitigated at this time.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes, the flood hazard maps address flood risk within the Borough.
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	The Borough Engineer is responsible for floodplain management.





NFIP Topic	Comments
Are any certified floodplain managers on staff in your jurisdiction?	Yes, there are certified staff at the Borough.
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, the Borough has access to these resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would consider attending training and/or continuing education training if offered in the County.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	The Borough provides permits and inspection services.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	The Borough Engineer determines if a proposed development would qualify as a substantial improvement.
What are the barriers to running an effective NFIP program in the community, if any?	None at this time.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	None.
What is the local law number or municipal code of your flood damage prevention ordinance?	FDPO, Chapter 64
What is the date that your flood damage prevention ordinance was last amended?	Adopted 10/20/1982 and last amended 8/3/2011.
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Yes
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	The Borough would attend a CRS seminar if offered locally.

## 5.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 5-11 through Table 5-13.

Table 5-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0



	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	0	0	0	0
Permits within SFHA	2	0	0	2

SFHA = Special Flood Hazard Area (1% flood event)

Table 5-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 5-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Anticipated.					

## 5.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Branchville's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.





### 5.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Borough are shown in Figure 5-1 through Figure 5-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Branchville has significant exposure. The maps show the location of potential new development, where available.



Figure 5-1. Branchville Flood and Sinkhole Hazard Area Extent and Location Map

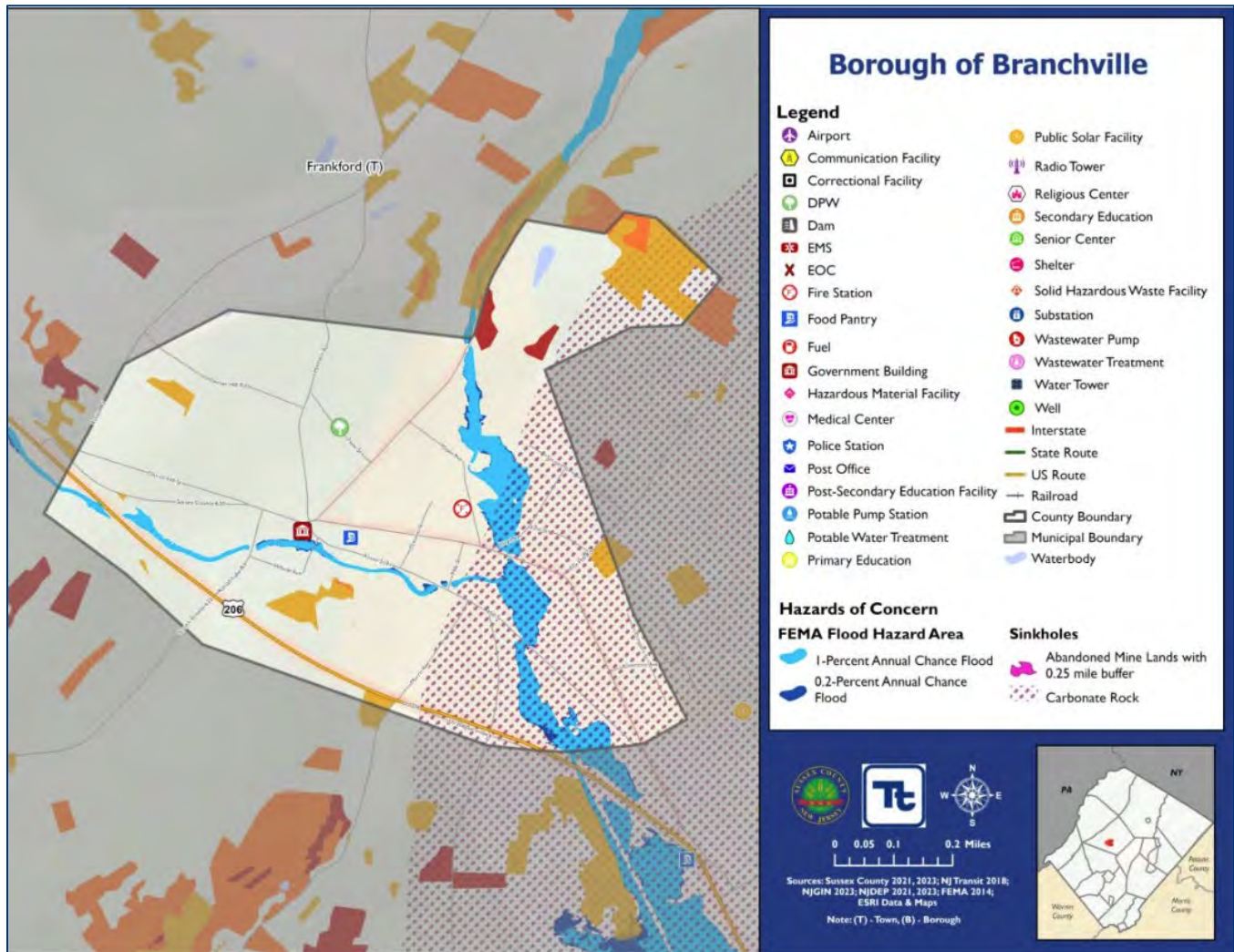




Figure 5-2. Branchville HAZMAT and Wildfire Hazard Area Extent and Location Map

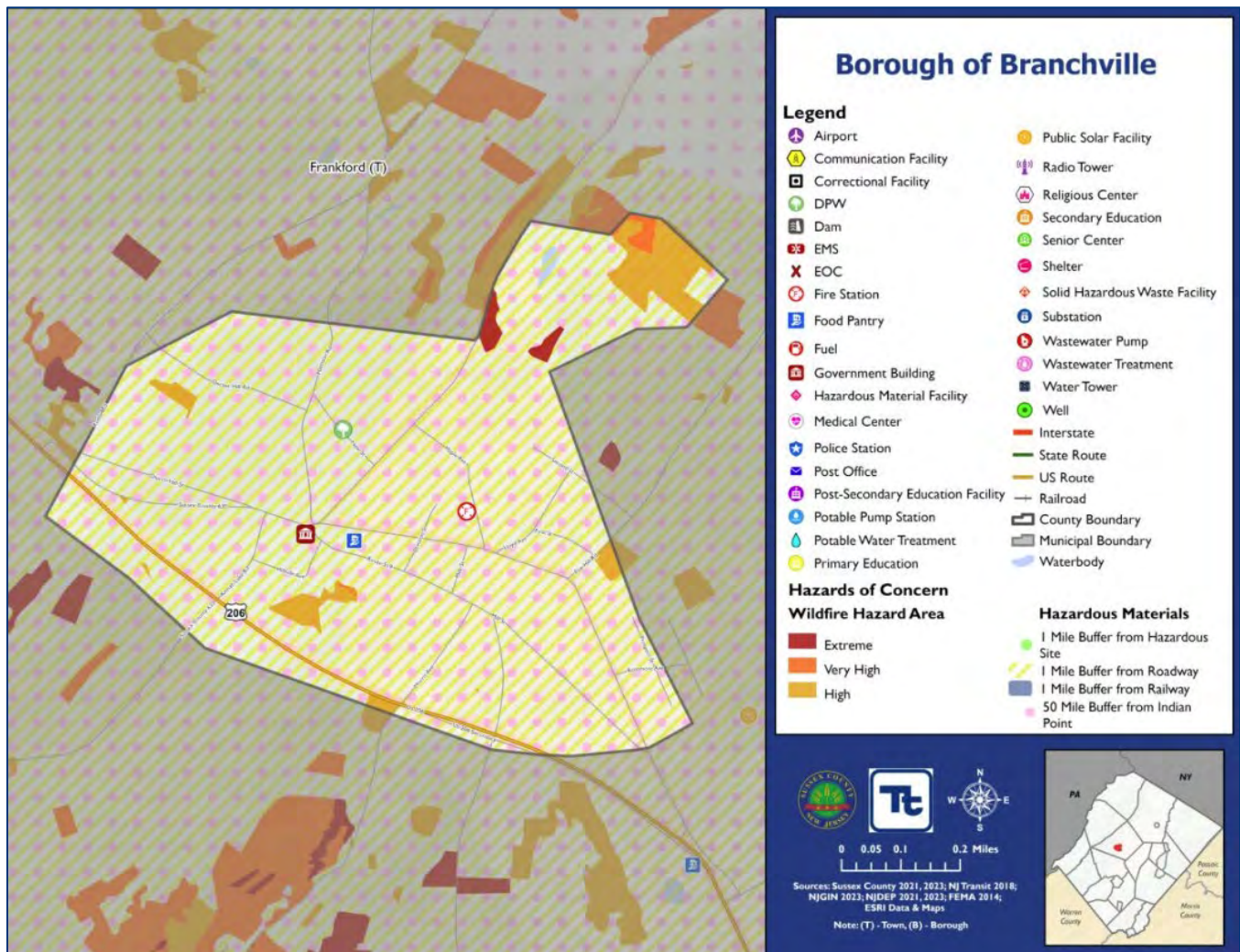
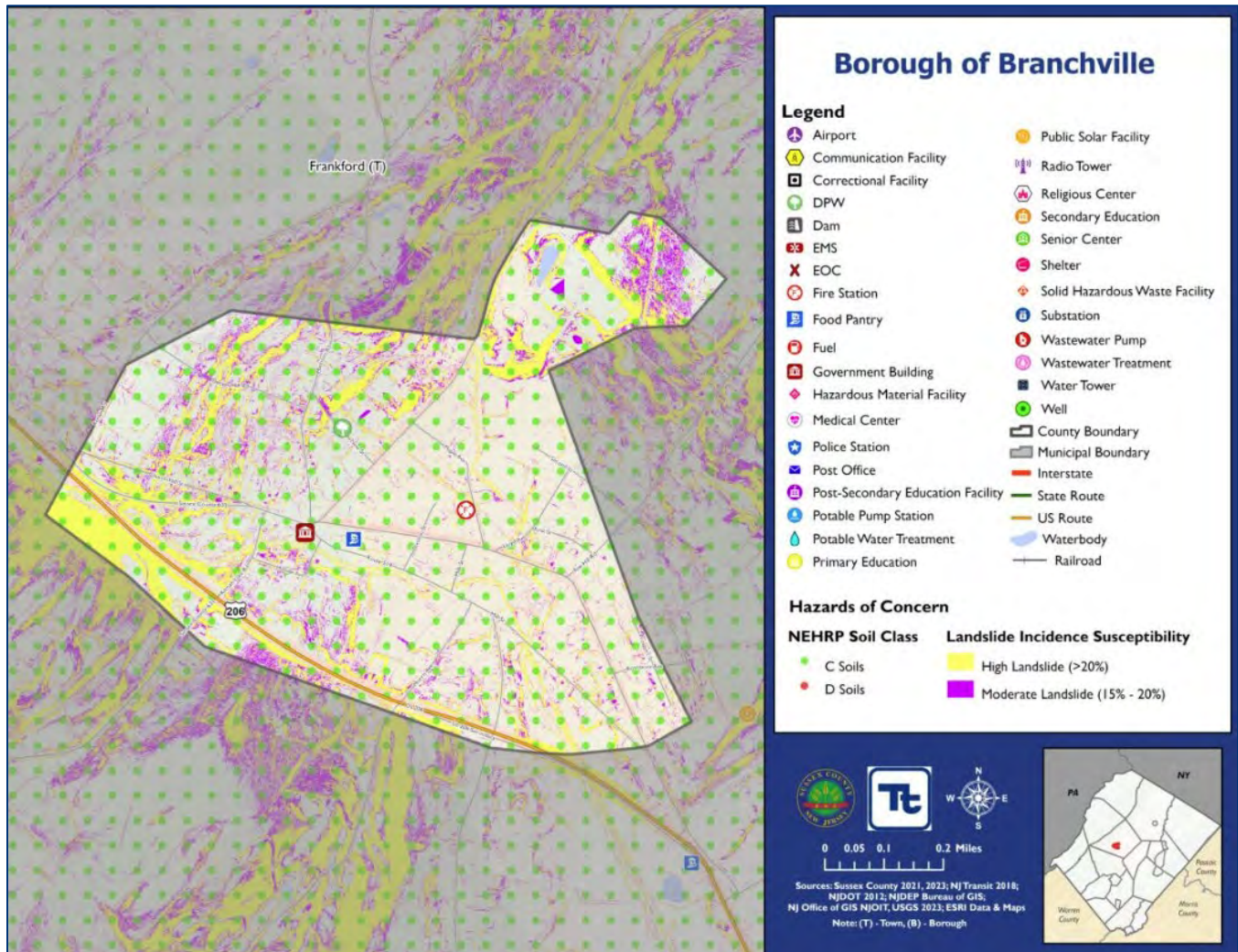






Figure 5-3. Branchville NEHRP and Landslide Hazard Area Extent and Location Map





## 5.6.2 Hazard Event History

The history of natural and non-natural hazard events in Branchville is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 5-14 provides details on loss and damage in Branchville during hazard events since the last hazard mitigation plan update.

Table 5-14. Hazard Event History in Branchville

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Branchville
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Borough was subject to state mandated masking and 6ft social distancing requirements.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Although the County experienced damages, the Borough did not report significant impacts.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Over \$13,969.15 in recorded damages for the Borough.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Although the County experienced damages, the Borough did not report significant impacts.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 5.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for the Borough of Branchville.

### Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and



impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. The Borough of Branchville reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Borough indicated the following:

- The Borough agreed with the following calculated hazard ranking outlined in Table 5-15.

Table 5-15 shows the Borough of Branchville's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 5-15. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 5-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 5-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
The Borough does not have any critical facilities located within the 1- or 0.2-percent annual chance floodplains.					

Source: Sussex County 2021, 2023; NJGIN 2023



### 5.6.4 Identified Issues

After review of Branchville's hazard event history, hazard rankings, hazard location, and current capabilities, Branchville identified the following vulnerabilities within the community:

- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.
- Although the Borough has flood exposure, the Borough does not participate in the Community Rating System (CRS) program. By participating in the CRS program, the Borough can reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management. Borough residents which have flood insurance through the NFIP may see a decrease in flood insurance rates.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- Mitigation planning in the Borough is often a separate effort from many other types of planning within the Borough, such as pandemic response and recovery. Disregarding mitigation considerations may cause gaps in the ability to fully prepare for these newer hazard events.
- Dry Brook near the Borough baseball field is prone to erosion of streambanks. The erosion of streambanks can cause flooding conditions in surrounding areas, putting infrastructure, property, and lives at risk.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has two repetitive loss properties, but other properties may be impacted by flooding as well.
- The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Borough. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.

## 5.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 5.7.1 Past Mitigation Action Status

Table 5-17 indicates progress on the Borough's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.





### 5.7.2 Additional Mitigation Efforts

Branchville did not identify any additional mitigation efforts completed since the last HMP. Since the adoption of the County's first HMP, Branchville has made significant mitigation progress in the following areas:

- Public Outreach and Education.
- Backup Power
- Disaster Debris Management



Table 5-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Branchville-001	Generator Installation	Severe Winter Weather, Severe Weather	Borough Administration	<p><b>Problem:</b> The Borough Hall and well house do not have adequate backup power to operate during a hazard event. The Borough hall is an essential facility that acts as the emergency operation center for the municipality, while the well house is critical for public utilities that are required to be fully operating at all times. The Borough would like to install 3 phase multi-fuel source generators to power each respective facility.</p> <p><b>Solution:</b> The Borough engineer would need to conduct a needs assessment to determine the technical energy capacity needed before determining the proper generator needed for installation. The engineer would then be tasked to purchase and install the generator at each facility. The Borough board shall assist as needed.</p>	1. Completed. 2. Not applicable	1. Discontinue. 2. Not applicable 3. Completed - Generator installed & working at Municipal Building. Generator has been purchased for Well House (issues with electric for starting well).
2021-Branchville-002	Dry Brook Embankments	Flood	Borough DPW/Engineer	<p><b>Problem:</b> The existing embankments along Dry Brook are relatively low and are prone to overflow, causing potential widespread flooding to surrounding properties. In previous years, due to severe storm events, the brook has flooded main roads entering and existing town, in addition to forcing hundreds of residents to evacuate.</p>	1. In Progress. 2. Not applicable	1. Keep in the 2025 HMP. 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<b>Solution:</b> The Borough DPW and engineer will raise embankments along 70 feet of the Dry Brook near Borough baseball field. This will decrease flooding within the municipality and reduce overflow of creek during extreme weather events.		
2021-Branchville-003	Disaster Debris Management Plan	All Hazards	Borough Engineer & DPW	<b>Problem:</b> The Borough has previously experienced severe flooding in its brooks and streams that pass through the borough, including Dry Brook and Culvers Creek. In one year, the municipality experienced all in and outbound road closures due to stream flooding and a hundred residents forced to evacuate their homes as a result. The resulting debris from these types of events continue to be an issue to the municipality.  <b>Solution:</b> The Borough will develop a disaster debris management plan that can be used to properly manage the debris after Severe Weathers and flooding. Having specific guidance can help municipal and business owners determine what needs to be done with excess debris. The Borough board shall lead the initiative to develop this plan, along with assistance from the DPW and engineer for technical guidance.	1. Completed 2. Not applicable	1. Discontinue. 2. Not applicable 3. Completed



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Branchville-004	Repetitive Loss Properties	Flood, Severe Weather	NFIP Floodplain Administrator, supported by homeowners	<p><b>Problem:</b> Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has 2 repetitive loss properties but other properties may be impacted by flooding as well.</p> <p><b>Solution:</b> Conduct outreach to 10 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	1. Completed 2. Not applicable	1. Discontinue. 2. Not applicable 3. Completed
2020-Branchville-005	Incorporate Freeboard into FDPO	Flood	Borough Board	<p><b>Problem:</b> The Borough's Flood Damage Prevention Ordinance does not have any information in regard to the state's mandated freeboard requirement.</p> <p><b>Solution:</b> The municipality will update its flood damage prevention ordinance using the model flood prevention ordinance from the State of New Jersey Department of Environmental Protection: <a href="https://www.nj.gov/dep/floodcontrol/modelord.htm">https://www.nj.gov/dep/floodcontrol/modelord.htm</a></p>	1. Completed 2. Not applicable	1. Discontinue. 2. Not applicable 3. Completed



### 5.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Branchville participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Branchville would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Borough priorities.

Table 5-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 5-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 5-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X			X	X		X			X
Disease Outbreak	X			X	X		X			
Drought	X			X	X		X			
Earthquake	X			X	X		X			X
Flood	X	X	X	X	X	X	X	X	X	X
Geological Hazards	X			X	X		X			X
Hazardous Materials	X			X	X		X			X
Hurricane	X	X	X	X	X		X	X	X	X
Infestation	X			X	X		X			
Nor'easter	X	X	X	X	X		X	X	X	X
Severe Weather	X	X	X	X	X		X	X	X	X
Severe Winter Weather	X			X	X		X			X
Wildfire	X			X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 5-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-BranchvilleB-01	Code Coordinated Ordinance	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-BranchvilleB-02	Community Rating System Program Participation	0	1	1	1	1	1	0	0	1	0	1	1	0	1	9	Medium
2025-BranchvilleB-03	Substantial Damage Management Plan	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-BranchvilleB-04	Plan Integration for New Hazards	1	1	1	1	1	1	0	1	1	1	0	1	0	0	10	Medium
2025-BranchvilleB-05	Dry Brook Streambank Stabilization	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-BranchvilleB-06	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-BranchvilleB-07	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).





## Action 2025-BranchvilleB-01. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Construction Official, Administration, NFIP State Coordinator, FEMA Regional Office		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.		
<b>Description of the Solution:</b>	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2		
<b>Benefits:</b>	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations, such as the elderly or disabled, may exist.		
<b>Impact on Future Development:</b>	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area within the Borough.		
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities and lifelines located in the Special Flood Hazard Area of the Borough will be required to meet the same requirements as general building construction that are set forth in the ordinance. These critical facilities will be better protected against flooding events and will remain operational during a severe flood event.		
<b>Impact on Capabilities:</b>	This action will improve floodplain management capabilities through better outlining Borough responsibilities and administrative procedures.		
<b>Climate Change Considerations:</b>	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.		
<b>Mitigation Category</b>	<div><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>		
<b>CRS Category</b>	<div><input checked="" type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Problem persists	
	Modify existing flood damage prevention ordinance	Time intensive and there may not be the capabilities in place for the Borough.	
	Leave NFIP	Residents lose flood insurance coverage, which is not publicly favored.	



## Action 2025-BranchvilleB-02. Community Rating System Program Participation

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Borough Administration, Emergency Management		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Although the Borough has flood exposure, the Borough does not participate in the Community Rating System (CRS) program. By participating in the CRS program, the Borough can reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management. Borough residents which have flood insurance through the NFIP may see a decrease in flood insurance rates.		
<b>Description of the Solution:</b>	The Borough will evaluate the benefits and costs of participating in CRS program. If feasible, the Borough will join the program and begin implementing standards that exceed NFIP requirements.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	The participation in the CRS benefits communities by offering discounted rates for flood insurance premiums, which addresses the three goals of the program: reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management.		
<b>Impact on Socially Vulnerable Populations:</b>	The participation in the Community Rating System (CRS) benefits communities by offering discounted rates for flood insurance premiums, which may be more affordable for some socially vulnerable populations.		
<b>Impact on Future Development:</b>	Future development would need to adhere to any increased standards established as part of joining the CRS program such as increased freeboard and elevation certificate requirements.		
<b>Impact on Critical Facilities/Lifelines:</b>	Not applicable		
<b>Impact on Capabilities:</b>	This action would enhance the Borough's floodplain management capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These changes are likely to increase flood risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	-	
	Adopt aspects of the CRS program into the floodplain management program	Increased floodplain management capabilities but no reduction in flood insurance premiums	
	Abandon any floodplain management practices not required by NFIP	Reduction in floodplain management capabilities and increase in risk.	



## Action 2025-BranchvilleB-03. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator				
<b>Supporting Agencies:</b>	Public Works, OEM				
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials</td><td><input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire</td></tr></table>			<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire
<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire				
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"><li>• Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li><li>• Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li><li>• Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li><li>• Require permits for floodplain development.</li></ul> <p>The Borough does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The Borough is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>				
<b>Description of the Solution:</b>	<p>The Borough will develop a Substantial Damage Management Plan, following the six step planning process in 2021 <i>Developing a Substantial Damage Management Plan</i> (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>				
<b>Estimated Cost:</b>	Low				
<b>Potential Funding Sources:</b>	Municipal budget				
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan				
<b>Goals Met:</b>	1, 2, 3, 4				
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.				
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.				
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.				
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.				
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.				
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.				
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)				
<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)
<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)				
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>			



	No action	Problem persists
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



Action 2025-BranchvilleB-04. Plan Integration for New Hazards

<b>Lead Agency:</b>	Planning Department		
<b>Supporting Agencies:</b>	Office of Emergency Management, Borough Administration, State, FEMA		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	Mitigation planning in the Borough is often a separate effort from many other types of planning within the Borough, such as pandemic response and recovery. Disregarding mitigation considerations may cause gaps in the ability to fully prepare for these newer hazard events.		
<b>Description of the Solution:</b>	During future updates of the Master Plan, Floodplain Management Plan, or the Emergency Operation Plan, Borough agencies will work together to integrate hazard mitigation principles and recommendations for newer hazards such as pandemic response into the plans.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	HMGP, BRIC, FMA, Annual Budget		
<b>Implementation Timeline:</b>	Short		
<b>Goals Met:</b>	1, 2, 3, 4		
<b>Benefits:</b>	Provides an opportunity for coordination amongst agencies and their planning efforts to improve the overall ability to prepare for, respond to, and recover from events.		
<b>Impact on Socially Vulnerable Populations:</b>	Communities that collaborate and coordinate their planning efforts are more likely to have identified ways to best work with vulnerable populations to increase their level of preparedness.		
<b>Impact on Future Development:</b>	N/A		
<b>Impact on Critical Facilities/Lifelines:</b>	Hospitals and shelters, which are critical facilities, will be better able to respond to newer hazard events such as pandemics by following updated master plan and EOP guidance.		
<b>Impact on Capabilities:</b>	A consolidated planning process brings together the capabilities of agencies and departments and better identifies what resources are available at any given point in time and where they are needed most.		
<b>Climate Change Considerations:</b>	As the climate changes, planning processes will require a more intense focus on plan maintenance and gathering of the best data to remain current and accurate over time.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Problem persists	
	Rely on State mitigation and response	Effort is still needed on a local level to ensure community safety.	
	Rely on Federal mitigation and response	Effort is still needed on a local level to ensure community safety.	



## Action 2025-BranchvilleB-05. Dry Brook Streambank Stabilization

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Dry Brook near the Borough baseball field is prone to erosion of streambanks. The erosion of streambanks can cause flooding conditions in surrounding areas, putting infrastructure, property, and lives at risk.																
<b>Description of the Solution:</b>	The Borough Department of Public Works and Engineer will raise embankments along 70 feet of the Dry Brook near Borough baseball field. This will decrease flooding within the municipality and reduce overflow of creek during extreme weather events.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Municipal Budget																
<b>Implementation Timeline:</b>	3 years																
<b>Goals Met:</b>	2																
<b>Benefits:</b>	This action will prevent erosion along the Dry Brook, protecting property and infrastructure from further impact.																
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding from the Dry Brook. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.																
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding from the Dry Brook, permitting first responders to traverse the roadways safely.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These periods of intense rain may lead to more instances of flooding and increased erosion.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input checked="" type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input checked="" type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input checked="" type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input checked="" type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input checked="" type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input checked="" type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Remove properties impacted by stream overflow</td><td>Costly</td></tr><tr><td>Construct floodwall to prevent flooding</td><td>Cost prohibitive and could ruin natural floodplain function</td></tr></table>	Action	Evaluation	No action	Current problem continues	Remove properties impacted by stream overflow	Costly	Construct floodwall to prevent flooding	Cost prohibitive and could ruin natural floodplain function								
Action	Evaluation																
No action	Current problem continues																
Remove properties impacted by stream overflow	Costly																
Construct floodwall to prevent flooding	Cost prohibitive and could ruin natural floodplain function																



## Action 2025-BranchvilleB-06. Repetitive Loss Properties

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Sussex County		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has two repetitive loss properties, but other properties may be impacted by flooding as well.		
<b>Description of the Solution:</b>	The Borough will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA FMA, FMA SWIFT, Municipal Budget, County Budget, Property Owners		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	2, 3		
<b>Benefits:</b>	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will enhance the Borough's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		Current problem continues
	Construct flood walls/barriers around vulnerable areas		Costly and can divert floodwaters to other areas
	Deployable flood barriers for vulnerable areas		Requires a great deal of work to implement prior to each event





## Action 2025-BranchvilleB-07. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Borough has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Borough and potentially reduce the number of emergency calls during hazardous events.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Borough events, the Borough newsletters, social media, the Borough website, and having the materials on display for the public at Borough libraries and offices. Consider hiring staff to work directly with socially vulnerable populations. Work with Sussex County to identify and create a list of socially vulnerable populations utilizing Register Ready.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Borough. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Borough will become educated on hazards risks. The Borough will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program. It would also assist the Borough in identifying where socially vulnerable populations are located in the jurisdiction.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	



	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
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## 6. TOWNSHIP OF BYRAM

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Byram with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Byram, describes who participated in the planning process, assesses Byram's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 6.1 HAZARD MITIGATION PLANNING TEAM

The Township of Byram identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 6-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 6-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Joseph Sabatini, Township Manager Address: 10 Mansfield Drive, Stanhope, NJ 07874 Phone Number: 973-347-2500 X129 Email: jsabatini@byramtwp.org	Name/Title: Phil Crosson, Deputy Township Manager Address: 10 Mansfield Drive, Stanhope, NJ 07874 Phone Number: 973-347-2500 X161 Email: pcrosson@byramtwp.org
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Cory Stoner, P.E., P.P., C.M.E, Floodplain Administrator / Herold E. Pellow & Associated, Inc. Address: 17 Plains Rd. Augusta, NJ 07822 Phone Number: (973) 948-6463 Email: -	
<b>Additional Contributors</b>	
Name/Title: Michael Orgera, Superintendent of Public Works Method of Participation: Attended Planning Partnership meetings. Completed final review of the draft annex and completed sign-off sheet.	
Name/Title: Todd Rudloff, Fire Chief Method of Participation: Attended the Planning Partnership meetings. Provided information on previous events, Township capabilities, and NFIP information.	
Name/Title: Joseph Sabatini, Township Manager Method of Participation: Attended Planning Partnership meetings and Mitigation Strategy Workshop. Completed final review of the draft annex and completed sign-off sheet.	
Name/Title: Phil Crosson, Deputy Township Manager Method of Participation: Attended Planning Partnership meetings and Mitigation Strategy Workshop. Provided information on previous events, Township capabilities, and NFIP information. Completed final review of the draft annex and completed sign-off sheet.	



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Name/Title: Peter Karcher, Construction Official/former Floodplain Administrator  
Method of Participation: Completed final review of the draft annex and completed sign-off sheet.

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Name/Title: Daniel DeWald, Emergency Manager/Police Chief  
Method of Participation: Completed final review of the draft annex and completed sign-off sheet.

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Name/Title: Cory Stoner, P.E., P.P., C.M.E, Floodplain Administrator  
Method of Participation: Completed final review of the draft annex and completed sign-off sheet.

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Name/Title: Cynthia Church, Township Clerk  
Method of Participation: Completed final review of the draft annex and completed sign-off sheet.

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## 6.2 COMMUNITY PROFILE

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Township of Byram is located in southern Sussex County. The Township is bordered to the north by the Townships of Andover and Sparta, to the east by the Borough of Hopatcong, to the west by Green and Andover Townships and to the south by Stanhope and Warren County. Numerous unincorporated communities are found within the Township and include Roseville, Whitehall, Cranberry Lake, Waterloo, and Lockwood. Andover Junction Brook, Musconetcong River, and Lubbers Run all flow through the Township. The Township is known as "The Township of Lakes" because of the two dozen lakes and ponds located throughout. Byram covers more than 22.48 square miles. Additionally, the Township is located within the New Jersey Highlands Region. According to the U.S. Census, the 2020 population for Byram was 8,028, a 3.8-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 6.8-percent of the population is 5 years of age or younger, 4.4-percent is 65 years of age or older, 5.3-percent is non-English speaking, 2.4-percent is below the poverty threshold, and 3.9-percent is considered disabled (ALICE 2023).

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Township of Byram, 19-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 6.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Byram performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities



- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Byram to identify opportunities for integrating mitigation concepts into ongoing Township procedures.

### 6.3.1 Planning and Regulatory Capability and Integration

Table 6-2 summarizes the planning and regulatory tools that are available to Byram.

Table 6-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019; State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.).	State & Local	Construction Official
How has or will this be integrated with the HMP and how does this reduce risk? <i>The building code provides guidance on how to design, build, and operate buildings. Modern building codes lead to major reductions in property losses from natural disasters.</i>				
<b>Zoning/Land Use Code</b>	Yes	State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, Effective 8/1/1976, 40-55D-62: 49; Municipal Ordinance Chapter 240 (4/5/79).	Local	Planning Board & Township Council
How has or will this be integrated with the HMP and how does this reduce risk? <i>Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. The Township Code does not permit the disturbance of steep slopes, environmentally sensitive areas, or areas in close proximity to water ways. The preservation of these sensitive areas limits the potential of significant risk during hazard events.</i>				
<b>Subdivision Code</b>	Yes	P.L.1975, c.291 (C.40:55D-47): 40:55D-37; Municipal Ordinance Chapter 215 (4/5/79).	Local	Planning Board & Township Council

How has or will this be integrated with the HMP and how does this reduce risk?  
*The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval;*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.*

*The Township Code does not permit the disturbance of steep slopes, environmentally sensitive areas or areas in close proximity to water ways. The preservation of these sensitive areas limit the potential of significant risk during hazard events. The Township Code also includes provisions for the protection of areas located within the Highlands Preservation Area that makes up the majority of the land areas within the Township, development of these areas are severely limited in size and scope.*

<b>Site Plan Code</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

<b>Stormwater Management Code</b>	Yes	Title 7 of the NJ Administrative Code, N.J.A.C. 7:8; Chapter 211 (4/3/06); Annual NJDEP Tier I Stormwater Permit.	State & Local	Township Council & NJDEP
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Township Code has adopted a Stormwater Management Ordinance with NJDEP rules and regulations that serve to mitigate any impacts from stormwater runoff from development projects within the municipality.*

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*

<b>Growth Management</b>	Yes	Township Smart Growth Plan (2002); Township Master Plan (2004); Zoning Ordinances (2006); Master Plan Highlands Element 10/12/14	State & Local	Planning Board, Township Council, and Highlands Council
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*How has or will this be integrated with the HMP and how does this reduce risk?*

*Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy.*

<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 19 Environmental Commission; Chapter 167 Littering and Dumping; Chapter 169 Hazardous Materials; Chapter 208 Soil Removal	State & Local	DEP
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*How has or will this be integrated with the HMP and how does this reduce risk?*

*The Township Code does not permit the disturbance of steep slopes, environmentally sensitive areas or areas in close proximity to water ways. The preservation of these sensitive areas limit the potential of significant risk during hazard events. The Township Code also includes provisions for the protection of areas located within the Highlands*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*Preservation Area that makes up the majority of the land areas within the Township, Development of these areas are severely limited in size and scope.*

<b>Flood Damage Prevention Ordinance</b>	Yes	Township Ordinance 135- Flood Damage Prevention.	Federal, State & Local	Construction Official
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How has or will this be integrated with the HMP and how does this reduce risk?

*It is the purpose of chapter 135 to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:*

- *Protect human life and health; B. Minimize expenditure of public money for costly flood-control projects;*
- *Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;*
- *Minimize prolonged business interruptions;*
- *Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;*
- *Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;*
- *Ensure that potential buyers are notified that property is in an area of special flood hazard;*
- *Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*
- *The ordinance currently lacks the state's 1-foot freeboard requirement.*

<b>Wellhead Protection</b>	Yes	Zoning Ordinance: article Highlands Area Land Use	Local	Land Use Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*The article on Highlands Area Land use discusses wellhead protection areas.*

<b>Emergency Management Ordinance</b>	Yes	Chapter 32 Emergency Management adopted 10/2/1974. Amended on 11/19/1990.	State & Local	Emergency Management Council
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How has or will this be integrated with the HMP and how does this reduce risk?

*Chapter 32 established the Emergency Management Council, which consists of the Emergency Management Coordinator and Deputy Emergency Management Coordinator.*

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

Municipal Separate Storm Sewer System (MS4)	Yes	Separate Storm Sewer System; Municipal Ordinance Chapter 203 (12/19/05).	Local	Township Council
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How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of Chapter 203 is to prohibit the spilling, dumping or disposal of materials other than stormwater to the municipal separate stormwater sewer system (MS4) operated by the Township of Byram, so as to protect the health, safety and welfare, and to prescribe penalties for the failure to comply.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Other: Special Purpose Ordinances (i.e., sensitive areas, steep slope)	Yes	Ordinance 240-29.2: Tract Disturbance; Master Plan Highlands Element (10/2/14); Highlands Conformance (currently underway), Amended 11/15/2004	Local	Planning Board and Township Council

How has or will this be integrated with the HMP and how does this reduce risk?

*The Township Code does not permit the disturbance of steep slopes, environmentally sensitive areas or areas near waterways. The preservation of these sensitive areas limits the potential of significant risk during hazard events. The Township Code also includes provisions for the protection of areas located within the Highlands Preservation Area that makes up most of the land areas within the Township. Development of these areas are severely limited in size and scope.*

#### PLANNING DOCUMENTS

<b>General/Comprehensive Plan</b>	Yes	Byram TWP Master Plan adopted 12/16/2004, re- examined March 2012.	Local	Land Use Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Master Plan outlines the goals of the Township which is to retain natural features and environmental resources the give the Township it's character and provide open space and recreation while protecting water quality and wildlife habitat; Develop a village center which combines residential, commercial and civic spaces for controlled growth and community hub; Maintain tradition character of each lake community by preservation of environmentally sensitive and undeveloped forests surrounding the communities (Township District Land Use Pattern); Establish transportation infrastructure to provide safe and easy travel for all residents of all ages; Support and promote economic development in the Township by creating opportunities for retail and service businesses, eco-tourism, and commercial enterprises; and use Smart Growth to provide mix housing opportunities for affordable places to live for Byram's families.*

<b>Capital Improvement Plan</b>	Yes	2015 Municipal Budget (3- year plan).	Local	Township Council
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Township Capital Improvement Plan focuses on the maintenance and preservation of the current infrastructure within the Township. The improvements that are part of this plan include roadways, parks, drainage and other improvements meant to properly serve the residents of the Township.*

<b>Disaster Debris Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Stormwater Management Plan</b>	Yes	Municipal Stormwater Management Plan (September 2005); Stormwater Management Plan adopted 4/3/2006.	Local	Township Council
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Township Stormwater Management Plan has been adopted per the Township's NJDEP MS4 Municipal Stormwater General Permit and includes recommended Best Management Practices to promote the recharge of stormwater into the ground and limit runoff from all major development projects.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Stormwater Pollution Prevention Plan</b>	Yes	Stormwater Pollution Prevention Plan, March 2024	Local	Department of Public Works
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Stormwater Pollution Prevention Plan for the Township was just updated in March of 2024. It includes the procedures and process for post construction stormwater management for new development and redevelopment, stormwater ordinances for the township, street sweeping process, municipal maintenance of yards, and a Watershed Improvement Plan element.</i>				
<b>Open Space Plan</b>	Yes	Open Space and Recreation Plan, Adopted October 2000, Updated June 2020.	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Township Open Space Plan promotes the preservation of undeveloped land and the promotion of passive recreation trails within the Township. With all of Byram Township being located within the Highlands Preservation or Planning Areas, limited development potential exists and open space preservation of all large tracks of undeveloped land is promoted.</i>				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	Yes	Sustainable Economic Development Plan, May 2016.	Local	Township Council
How has or will this be integrated with the HMP and how does this reduce risk? <i>This Sustainable Economic Development Plan is designed to provide Byram Township, its decision makers, its business community, and its citizens with tools and guidance in crafting a way forward based on detailed market analysis and comprehensive public input. Recommendations in this Plan will include public actions, such as revisions to land use ordinances, private initiatives, such as events run by the Business Owners Association, and development of up-to-date data to share with potential developers and investors revealing opportunities and demonstrating that Byram is Open for Business.</i>				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	Yes	Community Forestry Management Plan (2020- 2024)	Local	Mayor & Council; Township Manager; Public Works; Environmental Commission
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<i>This plan outlines the programs, policies, and procedures by which shade tree resources within the Township will be managed during the period January 2020 – December 2024.</i>				
<b>Transportation Plan</b>	Yes	Master Plan Circulation Element 2004.	Local	Planning Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The Township has focused considerable attention on addressing safety concerns during hazardous events. An example of this is the project that raised Little Paint Way and constructed a new drainage culvert to allow more water to run under the roadway and allow residents of that neighborhood to safely evacuate in a time of emergency. The Township has also focused resources on tree clearing, roadway and drainage, and other improvements to assure that residents can safely maneuver through the Township during a time of emergency.</i></p>				
<b>Agriculture Plan</b>	Yes	Township of Byram Master Plan, December 16, 2004	Local	Land Use Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The Township includes an agriculture element within their Master Plan.</i></p>				
<b>Climate Action/ Resilience/Sustainability Plan</b>	Yes	Climate Change Resilience Strategy and Plan, last updated in 2021.	State	NJDEP
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>New Jersey's first Statewide Climate Change Resilience Strategy provides a suite of forward-looking policy options to promote the long-term resilience of New Jersey to climate change. As a framework for policy, regulatory, and operational changes, the Resilience Strategy presents actions that New Jersey's Executive Branch can take to support the resilience of the state's communities, economy, and infrastructure. The Resilience Strategy includes 125 recommended actions across six priority areas.</i></p>				
<b>Tourism Plan</b>	Yes	Open Space Recreation Plan (2010).	Local	Land Use Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The Township Eco Tourism Plan is incorporated as an element in the Open Space Recreation Plan.</i></p>				
<b>Business/ Downtown Development Plan</b>	Yes	Byram Township Village Center Plan, 2022	Local	Zoning Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Byram's Village Center Ordinance establishes an Architectural Review Committee (ARC). The ARC is called upon to establish design guidelines, which are to illustrate and supplement the vision and standards described in the Ordinance, in Article XIII (Smart Growth Regulations and Standards), and in the Township's 2002 Smart Growth Plan.</i></p>				
<b>Other: Stream Corridor Management Plan</b>	Yes	Stream Corridor Management Plan adopted in June 1997, updated 12/18/2000	Local	Township Environmental Commission
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>In compliance with Lubbers Run Greenway project: A Stream Corridor Study (1997;2000).</i></p>				
<b>Other: Watershed Management/Protection Plan</b>	Yes	Municipal Stormwater Management Report, created in March 2005 and updated August 2019.	Local	NJ Highlands Water Protection & Planning Council
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>In compliance with Lakefront Development Plan (2003); Highlands Conformance Process (currently underway).</i></p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Other: Wastewater Management Plan</b>	Yes	Byram Township Chapter of the Sussex County Wastewater Management Plan, June 2022. Amending the Areawide Water Quality Management Plan	State & Local	NJ Highlands Water Protection & Planning Council

How has or will this be integrated with the HMP and how does this reduce risk?

*Supports of Byram Township's approved Petition for Plan Conformance and the Water Quality Management Planning Rules, N.J.A.C. 7:15.*

#### RESPONSE/RECOVERY PLANNING

<b>Emergency Operations Plan</b>	Yes	Township of Byram EOP, May 5, 2023	Local	Emergency Management
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Emergency Operations Plan defines the scope of preparedness and emergency management activities necessary in the Township. This document assigns responsibility to organizations and individuals for carrying out specific actions that exceed routine responsibility at projected times and places during an emergency; sets lines of authority and organizational relationships and shows how all actions will be coordinated; identifies how people and property are protected; and identifies personnel, equipment, facilities, supplies, and other resources available within the jurisdiction or by agreement with other jurisdictions.*

<b>Continuity of Operations Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Substantial Damage Response Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Post-Disaster Recovery Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Public Health Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other</b>	Yes	Smart Growth Plan (2002)	Yes	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*In compliance with Byram Township Smart Growth Plan (2002). This Plan presents a strategy to correct current development trends by directing growth to population centers while protecting rural resources and environmentally sensitive areas of the Township. By focusing development in the Village Center, the rural landscape will remain largely intact. Limited development in the environs will preliminarily take the form of hamlet scaled lake communities.*



### 6.3.2 Development and Permitting Capability

Table 6-3 summarizes the capabilities of Byram to oversee and track development.

Table 6-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	The Building Department is responsible for issuing development permits.
<ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>		
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain development
Do you have a buildable land inventory?	No	-
<ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>		
Describe the level of buildout in your jurisdiction.	N/A	There is available space for build-out within the Township.

### 6.3.3 Administrative and Technical Capability

Table 6-4 summarizes potential staff and personnel resources available to Byram and their current responsibilities that contribute to hazard mitigation.

Table 6-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Board shall adopt such rules and regulations as may be necessary to carry into effect the provisions and purposes of this chapter (Municipal Ordinance Chapter 45: 1/19/77, 11/19/90; Amendment 5/4/95). The Planning Board consists of nine members divided into four classes: Mayor; one official of the municipality other than a member of the governing body, appointed by the mayor; a member of the governing body to be appointed by it; and six other citizens of the municipality to be appointed by the Council.
Zoning Board of Adjustment	No	-
Planning Department	Yes	The Office of Planning and Development is responsible for land use planning, zoning, and code enforcement.
Mitigation Planning Committee	Yes	Hazard Mitigation Planning Team: Township Council and Municipal Department Heads
Environmental Board/Commission	Yes	The Commission shall consist of seven members and two alternates appointed by the mayor. One member of the Commission shall be a member of the Municipal Planning Board and all members shall be residents of the municipality (Municipal Ordinance Chapter 19 (10/2/74)).





Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		Responsibilities of the EC include conduct research into the use of open land areas, coordinate activities of unofficial bodies organized for the purpose of promoting conservation; advertise, prepare, and distribute books/media necessary for its purposes; keep an index of all open areas publicly or privately owned; and generally, have the power to do all things necessary to promote the conservation and development of the township's resources.
Open Space Board/Committee	Yes	The committee consists of seven members: Manager of the Township; one member of the Planning Board; one member of the Environmental Commission; One member of the Recreation Commission; one citizen of the Township holding no other elected/appointed position; one member of the Council; one citizen of the Township who may hold another elected appointed position. The Open Space Committee shall hold public meetings, prepare an Open Space and Recreation Plan, decide of properties which it recommends that the Township acquire and submit a prioritized list of those properties to the Township Council (Municipal Ordinance Chapter 42 (1/20/2000)).
Economic Development Commission/Committee	Yes	The committee consists of seven members: Manager of the Township; one member of the Planning Board; one member of the Environmental Commission; One member of the Recreation Commission; one citizen of the Township holding no other elected/appointed position; one member of the Council; one citizen of the Township who may hold another elected appointed position. The Open Space Committee shall hold public meetings, prepare an Open Space and Recreation Plan, make a determination of properties which it recommends that the Township acquire and submit a prioritized list of those properties to the Township Council (Municipal Ordinance Chapter 42 (1/20/2000)).Municipal Ordinance Chapter 42 (1/20/2000)
Public Works/Highway Department	Yes	The Department of Public Works (DPW) includes the following divisions: Roads, Sewers, Recycling, Buildings and Grounds, Park Maintenance, and Fleet Maintenance. DPW responsibilities include trash and recycling programs; maintenance of approximately 80 miles of roadways, 6 sewer pumping stations and 2 miles of sewer mains; snow and ice removal; maintenance of storm drains and basins; maintenance of township buildings; maintenance of township parks, playgrounds and athletic fields; coordination of annual roadway resurfacing program; fleet maintenance of township owned vehicles, including fire and police; removal of downed trees on township properties; cutting grass on township properties; traffic sign installation and repair; coordination of events such as curbside leaf pick-ups, Christmas tree pick-ups, limited bulk disposal and disposal days for e-waste, rigid plastics, etc.; and supporting township committees and grant efforts
Construction/Building/Code Enforcement Department	Yes	The Byram Building Department performs code enforcement, inspections, and issues permits.





Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management is located within the Township Police Department.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Superintendent of Department of Public Works is responsible for construction, maintenance and renovation of streets, roads, parks, parking lots and drainage; motor vehicle maintenance and cost recordkeeping; preparation of vehicle specifications; Installation, repair and maintenance of traffic devices; collection, recycling and disposal of refuse and leaves; street cleaning and snow and ice control; and care and maintenance of public buildings, grounds and trees.
Mutual aid agreements	Yes	Lakeland Emergency Squad & the Byram Township Volunteer Fire Department which is composed of the "Cranberry Lake Volunteer Fire Department, Inc."
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Municipal and Planning Board Engineer is responsible for surveys of Township improvements, lots, curbs, sewers, sidewalks, flood zones, drainage, and lines/grades. The Engineer also prepares maps and construction reports. The Consulting Land Use Planner also has knowledge and may assist in the land management practices.
Engineers or professionals trained in building or infrastructure construction practices	Yes	The Construction Official is responsible for carrying out the NJ Uniform Construction Code (UCC) and develops and executes appropriate procedures and policies. The Sub-Code Officials consist of the Electrical Sub Code Official, Plumbing Sub Code Official, and the Fire Protection Sub Code Official. The Electrical Sub Code Official reviews and approves proposed structures as provided by the NJ UCC in conformity with electrical and energy subcodes. The Plumbing Sub Code Official reviews and approves proposed structures as provided by the NJ UCC in conformity with plumbing and energy subcodes. The Fire Protection Sub Code Official reviews and approves proposed structures as provided by the NJ UCC in conformity with fire protection subcodes.
Planners or engineers with an understanding of natural hazards	Yes	The Construction Official is responsible for carrying out the NJ Uniform Construction Code (UCC) and develops and executes appropriate procedures and policies. The Sub-Code Officials consist of the Electrical Sub Code Official, Plumbing Sub Code Official, and the Fire Protection Sub Code Official. The Electrical Sub Code Official reviews and approves proposed structures as provided by the NJ UCC in conformity with electrical and energy subcodes. The Plumbing Sub Code Official reviews and approves proposed structures as provided by the NJ UCC in conformity with plumbing and energy subcodes. The Fire



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		Protection Sub Code Official reviews and approves proposed structures as provided by the NJ UCC in conformity with fire protection subcodes.
Staff with expertise or training in benefit/cost analysis	Yes	Township Risk Manager is a consultant with Skylands Risk Management and is responsible for assisting and working with the Township Manager and Township Engineer on benefit cost ratios.
Professionals trained in conducting damage assessments	Yes	The Construction Official is responsible for carrying out the NJ Uniform Construction Code (UCC) and develops and executes appropriate procedures and policies. The Municipal Engineer assists the Construction Official with conducting damage assessments
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Municipal and Planning Board Engineer is responsible for surveys of Township improvements, lots, curbs, sewers, sidewalks, flood zones, drainage, and lines/grades. The Engineer also prepares maps and construction reports.
Staff that work with socially vulnerable populations or underserved communities	Yes	Board of Health Secretary and Clerk connect socially vulnerable residents to available services locally or in the County as needed.
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Within Office of Township Engineer. Municipal and Planning Board Engineer is responsible for surveys of Township improvements, lots, curbs, sewers, sidewalks, flood zones, drainage, and lines/grades. The Engineer also prepares maps and construction reports.
Emergency manager	Yes	Emergency Management Coordinator is the emergency manager for the Township.
Grant writers	Yes	Municipal Staff
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Stormwater Engineer – Cory Stoner – Harold E. Pellow & associates  Environmental Specialist – Environmental Commission – Forester is Gracie & Harrigan Consulting Foresters

### 6.3.4 Fiscal Capability

Table 6-5 summarizes financial resources available to Byram.

Table 6-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes



Financial Resources	Accessible or Eligible to Use? (Yes/No)
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	Yes
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 6.3.5 Education and Outreach Capability

Table 6-6 summarizes the education and outreach resources available to Byram.

Table 6-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	The Township Manager is the public information officer.
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Everbridge – Nixle, which keeps citizens up to date with relevant information.
Natural disaster/safety programs in place for schools	Yes	Byram Township School District Emergency Response Template and Emergency Information Plan is available in the Office of the Chief of Police.
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Waterloo Neighborhood Food Pantry, Byram Township Affordable Housing Rehabilitation program, County of Sussex.
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

### 6.3.6 Community Classifications

Table 6-7 summarizes classifications for community programs available to Byram.



Table 6-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	3 – 1 and 2 family residential properties 3 – commercial and industrial properties	2009
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	Class 06/6X	June 2014
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	Not certified	Joined program 5/4/2009
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 6.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 6-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 6-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate – The Township has equipment/trucks/pumps.
Disease Outbreak	Moderate – Local resources combined with Sussex County Board of Health.
Drought	Moderate – Ability to pump water from the many lakes in the Township if needed.
Earthquake	Moderate – Heavy equipment/trucks/machinery.
Flood	Moderate – Heavy equipment/trucks/machinery.
Geological Hazards	Moderate – Heavy equipment/trucks/machinery.
Hazardous Materials	Moderate – Byram Fire Department and Sussex County Hazardous Material Unit
Hurricane	Moderate - Heavy equipment/trucks/machinery.



Hazard	Adaptive Capacity - Strong/Moderate/Weak
Infestation	Moderate – Sussex County Board of Health.
Nor'easter	Moderate - Heavy equipment/trucks/machinery/plows/salt spreaders.
Severe Weather	Moderate - Heavy equipment/trucks/machinery/plows/salt spreaders.
Severe Winter Weather	Moderate - Heavy equipment/trucks/machinery/plows/salt spreaders.
Wildfire	Moderate – Byram Fire Department, NJ Fire Forest Service – Heavy equipment.

## 6.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 6-1 is responsible for maintaining this information.

### 6.4.1 NFIP Statistics

Table 6-9 summarizes the NFIP policy and claim statistics for Byram.

Table 6-9. Byram NFIP Summary of Policy and Claim Statistics

# Policies	13
# Claims (Losses)	14
Total Loss Payments	\$129,877.78
# Repetitive Loss Properties (NFIP definition)	3
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA 2024

### 6.4.2 Flood Vulnerability Summary

Table 6-10 provides a summary of the NFIP program in Byram.



Table 6-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Heminover Street is low lying area due to topography and lakes which contribute to Lubbers Run and pose future flood concerns. Lubbers Run causes flooding on Richmond Road and surrounding areas when it backs up. Lake communities in general have a large potential for drainage issues and flooding due to lake overflow.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Substantial damage is done on an individual basis should they occur.
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	None declared to date.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None, to date.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes, FEMA flood hazard maps for the Township.
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Construction Official/Building Department
Are any certified floodplain managers on staff in your jurisdiction?	Yes
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Other than the lack of a general education/outreach program regarding flood hazards and risk, the Township lacks funding and resources to conduct a broader floodplain management program. The Township would welcome any opportunities to improve training and support for the FPA and Township staff to identify and mitigate flood prone areas.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	The Township does not provide NFIP services.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	N/A
What are the barriers to running an effective NFIP program in the community, if any?	N/A



NFIP Topic	Comments
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	January 12, 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 136 Flood Damage Prevention.
What is the date that your flood damage prevention ordinance was last amended?	Adopted by Township Council 12/7/1983, amended on 6/21/2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Chapter 136 Flood Damage Prevention, 136-7 Basis for establishing areas of special flood hazard.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	The Township has considered joining CRS and would attend a CRS seminar if offered locally.

## 6.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 6-11 through Table 6-13.

Table 6-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	3	0	5	8
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	2	0	10	12
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	1	0	8	9





	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 6-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 6-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Anticipated.					

## 6.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Byram's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 6.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 6-1 through Figure 6-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Byram has significant exposure. The maps show the location of potential new development, where available.

Figure 6-1. Byram Flood and Sinkhole Hazard Area Extent and Location Map

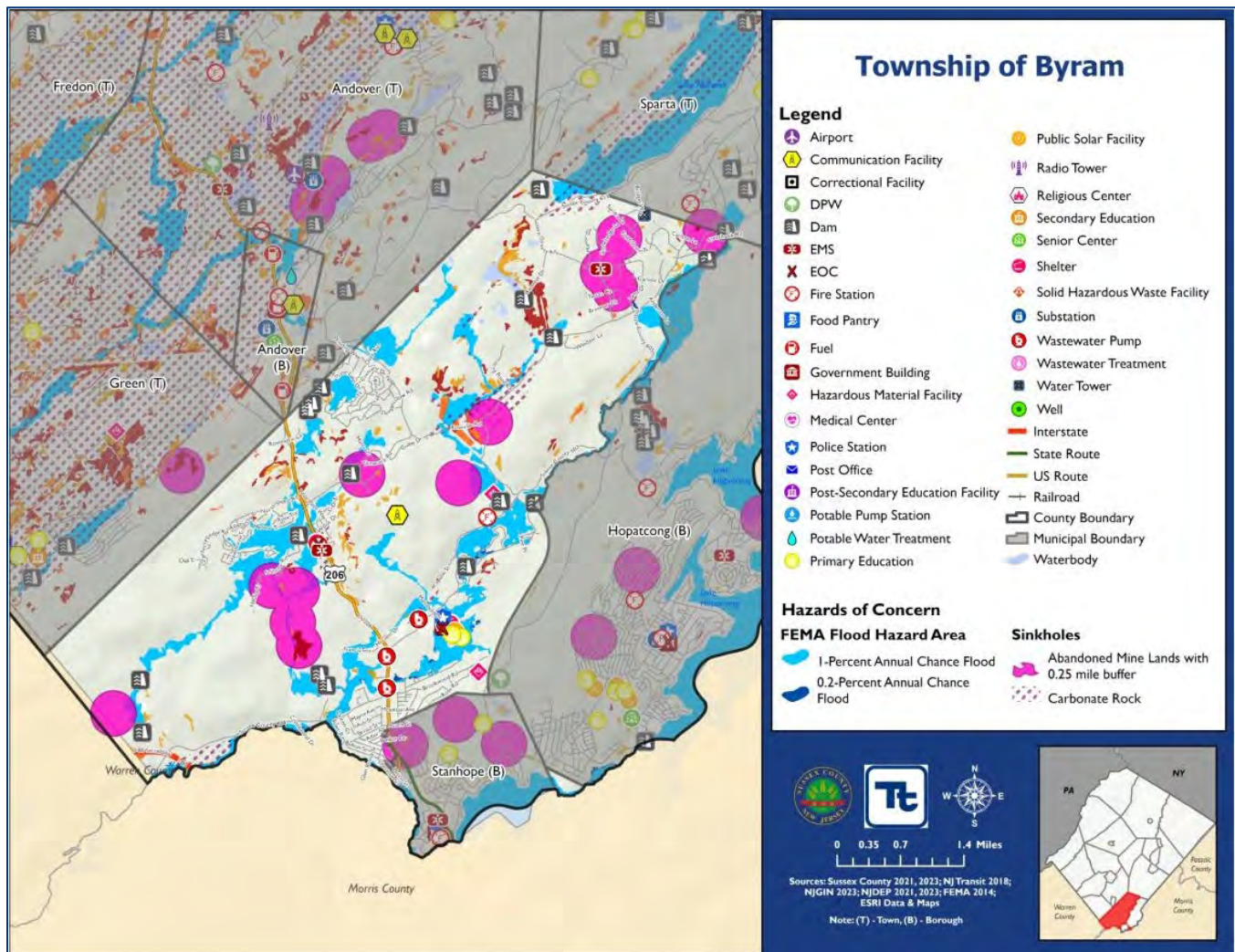


Figure 6-2. Byram Wildfire and HAZMAT Hazard Area Extent and Location Map

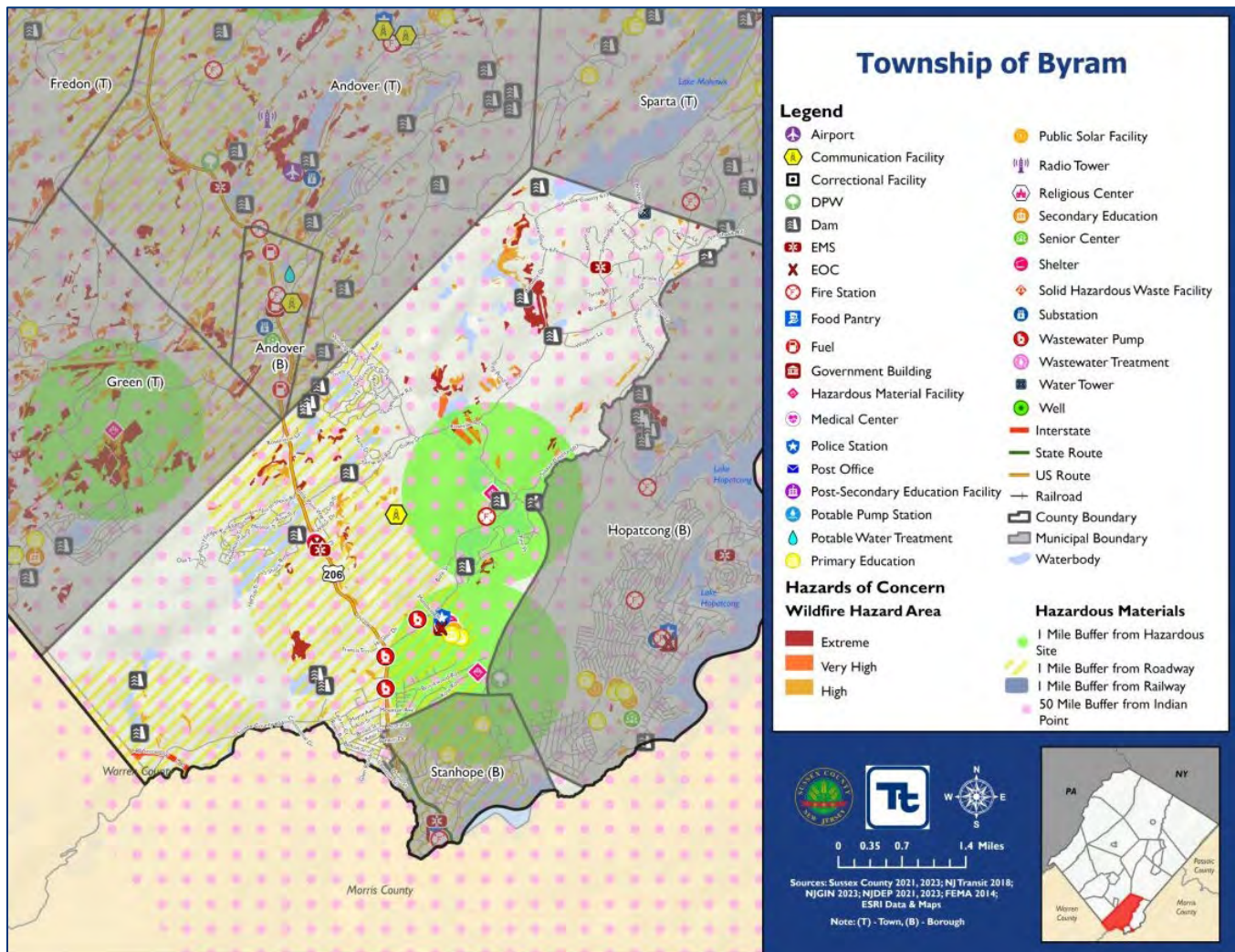
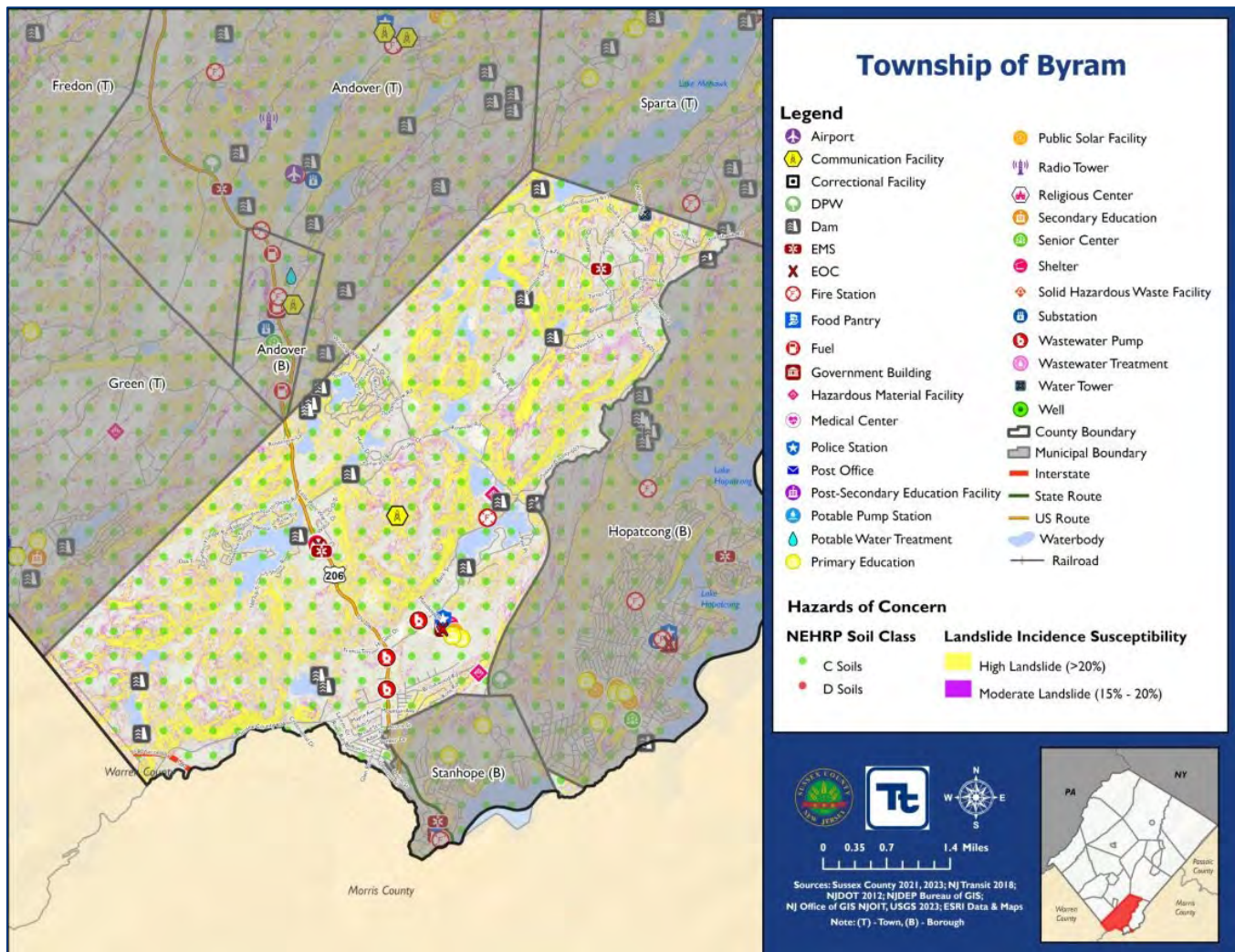




Figure 6-3. Byram NEHRP and Landslide Hazard Area Extent and Location Map





## 6.6.2 Hazard Event History

The history of natural and non-natural hazard events in Byram is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 6-14 provides details on loss and damage in Byram during hazard events since the last hazard mitigation plan update.

Table 6-14. Hazard Event History in Byram

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Byram
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	Mandatory mask and social distancing was implemented throughout the Township.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	No damages, debris clean-up only was reported in the Township.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Damaged snowplows and plow parts were reported in the Township.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Although the County was impacted, no damages were recorded within the Township.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 6.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Byram .



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Byram reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the following:

- The Township agrees with the calculated hazard rankings in Table 6-15.

Table 6-15 shows Byram's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 6-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Low
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 6-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.



Table 6-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Byram Lakes Elementary School	Shelter	Yes	Yes	2025-ByramTwp-10	-
Pump Station 5	Wastewater Pump	Yes	Yes	2025-ByramTwp-10	-
Pump Station 6	Wastewater Pump	Yes	Yes	2025-ByramTwp-10	-
Byram Twp Intermediate School	Shelter	Yes	Yes	2025-ByramTwp-10	-
Cub Lake Dam	Dam	Yes	Yes	2025-ByramTwp-06; 2025-ByramTwp-11	-
Frenches Pond Dam	Dam	Yes	Yes	2025-ByramTwp-06; 2025-ByramTwp-11	-
Johnson Lake Dam	Dam	Yes	Yes	2025-ByramTwp-06; 2025-ByramTwp-11	-
Kofferls Pond Dam	Dam	Yes	Yes	2025-ByramTwp-06; 2025-ByramTwp-11	-
Lake Lackawanna Dam	Dam	Yes	Yes	2025-ByramTwp-06; 2025-ByramTwp-11	-
Panther Lake Dam	Dam	Yes	Yes	2025-ByramTwp-06; 2025-ByramTwp-11	-
Reservoir Lake Dam	Dam	Yes	Yes	2025-ByramTwp-06; 2025-ByramTwp-11	-
Tomahawk Lake Dam	Dam	Yes	Yes	2025-ByramTwp-06; 2025-ByramTwp-11	-
Wolf Lake Dam	Dam	Yes	Yes	2025-ByramTwp-06; 2025-ByramTwp-11	-

Source: Sussex County 2021, 2023; NJGIN 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in or nearby the Township of Byram:

- Cranberry Lake Dam
- Frenches Pond Dam
- Reservoir Lake Dam

### 6.6.4 Identified Issues

After review of Byram's hazard event history, hazard rankings, hazard location, and current capabilities, Byram identified the following vulnerabilities within the community:

- Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dams are located





in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:

- West Shore Trail Dam (poor)
- Jefferson Lake Dam (poor)
- Cranberry Lake Dam (poor)
- There is only one egress located at East Brookwood to help mitigate flooding concerns for over 200 homes. There is also extensive flooding issues on Brookwood Road at intersection of Route 206 nearby due to blockage. Flooded roadways can cause traffic congestion and interrupt the potential evacuation of residents and visitors.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has three repetitive loss properties, but other properties may be impacted by flooding as well. Flood prone property owners lack the education and resources to mitigate flood impacts. The Township would like to pursue acquisition/elevation of at least one repetitive loss property.
- The Township faces increasing flood risks due to more intense precipitation events. Incorporating best practices and the most up-to-date NFIP guidance will better protect the Township, its residents, and their properties from potential damage. However, some of the Township staff are not adequately trained to enforce NFIP regulations and/or floodplain management ordinances.
- There is extensive stormwater runoff going through private properties which means the existing culverts are not working properly. The Township needs more information on the existing culverts and how to mitigate the stormwater runoff.
- There is an insufficient amount of data surrounding dam inundation and the resulting flooding within the Township. These structures have the potential to impact those living near and downstream of dams in the jurisdiction and cause damages to property, infrastructure, the environment, and lives.
- Major disaster events can result in large amounts of debris that overwhelm normal trash collection operations. Depending on the amount generated, temporary staging areas for debris collection may be needed. The municipality does not have a disaster debris management plan in place. During a disaster that results in debris, a plan with outlined responsibilities is needed to adequately address post-disaster cleanup operations.
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has a number of critical facilities in the floodplain including Byram Lakes Elementary School, Pump Station 5, Pump Station 6, And Byram Twp Intermediate School.



- Cub Lake Dam, Frenches Pond Dam, Johnson Lake Dam, Kofferls Pond Dam, Lake Lackawanna Dam, Panther Lake Dam, Reservoir Lake Dam, Tomahawk Lake Dam, and Wolf Lake Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has three high-hazard potential dams, the Cranberry Lake Dam, Frenches Pond Dam, and Reservoir Lake Dam, within its jurisdiction. These structures have the potential to impact those living nearby.
- Reservoir Lake Dam is a Class I High Hazard Dam that is located on Chemy Creek. The dam is owned by the Patriots' Path Council, B.S.A. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including Wheller Road. Tiny Creek leads from Chemy Creek to Frenches Pond where another High Hazard Potential Dam, Frenches Pond Dam, is situated. The failure of this dam could lead to a compounded failure of Frenches Pond Dam due to the weight of the influx of water. Although the Reservoir Lake Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Cranberry Lake Dam is a Class I High Hazard Dam that is located on Cranberry Lake. The dam is owned by the New Jersey Division of Parks and Forestry. Failure of the dam could result in inundation of forested area, densely populated areas, commercial properties, recreational area, South Shore Road, and State Route 206. The dam was last inspected in 2022 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Frenches Pond Dam is a Class I High Hazard Dam that is located on Frenches Pond. The dam is owned by the Patriots' Path Council, B.S.A. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including Wheller Road and Camp Allamuchy Road, and potentially Interstate-80. Another High Hazard Potential Dam, the Reservoir Lake Dam, is connected to Frenches Pond upstream by Tiny Creek. Although the Frenches Pond Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 6.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 6.7.1 Past Mitigation Action Status

Table 6-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 6.7.2 Additional Mitigation Efforts

Byram did not identify any additional mitigation efforts in progress since the last HMP. Since the adoption of the County's first HMP, Byram has made significant mitigation progress in the following areas:

- Public education and outreach.
- Stormwater Management



- Dam Failure Mitigation and Maintenance.



Table 6-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Byram-001	East Brookwood Alternative Emergency Ingress/Egress	All Hazards	Engineer, Public Works, OEM	<b>Problem:</b> There is no ingress/egress to East Brookwood in the event of an issue that would block Brookwood Road at the intersection of Route 206.  <b>Solution:</b> The Township will develop an alternate ingress/egress to East Brookwood in the event of an issue that would block Brookwood Road at the intersection of Route 206.	1. No Progress 2. The Township is reviewing options for this project. All options require access to private property or bridge replacement.	1. Keep in the 2025 HMP. 2. The Township will explore funding options to conduct an engineering study of East Brookwood Estate drainage issues and implement the most cost-effective mitigation actions identified. 3. Not applicable
2021-Byram-002	East Brookwood Estates Drainage	Flood, Severe Weather	Township Engineer, DPW, Planning Board	<b>Problem:</b> East Brookwood Estates experiences drainage issues.  <b>Solution:</b> The Township will conduct an engineering study of East Brookwood Estate drainage issues and pursue identified cost-effective mitigation actions identified by the study.	1. No Progress 2. Township has not progressed on this project due to lack of funding and staff.	1. Keep in the 2025 HMP. 2. The Township will explore funding options to conduct an engineering study of East Brookwood Estate drainage issues and implement the most cost-effective mitigation actions identified. 3. Not applicable
2021-Byram-003	Floodplain Management Capabilities	Flood	NFIP FPA, Emergency Management Coordinator, Emergency	<b>Problem:</b> The Township has flood risk. Staff could benefit from additional training.  <b>Solution:</b> Have designated NFIP Floodplain Administrator	1. Ongoing Capabilities 2. Floodplain Administrator needs the required training.	1. Keep in the 2025 HMP. 2. The Township will explore NFIP training opportunities for the Floodplain Administrator to pursue acquisition of RL properties. As well, the Floodplain Administrator will



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
			Management Council	(FPA), and the Town's Emergency Management Council, become a Certified Floodplain Manager (CFM) through the Association of State Floodplain Managers (ASFPM) and New Jersey Association for Floodplain Management (NJAFM), and pursue relevant continuing education training such as FEMA Benefit-Cost Analysis (BCA) and Substantial Damage Estimation (SDE).		implement educational opportunities and outreach administer to repetitive loss property owners to explore flood mitigation actions and funding available. 3. Not applicable
2021-Byram-004	Upgrade and Improve Culverts on Little Paint Way	Flood, Severe Weather	Engineer, DPW Supervisor	<b>Problem:</b> Little Paint Way experiences slow drainage and flooding issues, attributed to undersized culverts.  <b>Solution:</b> The Engineer will survey the existing culverts and determine what culvert improvements are necessary. The DPW Supervisor will then carry out the identified culvert improvements.	1. Completed 2. New culvert was installed in 2022 to improve flooding conditions along Little Paint Way.	1. Discontinue 2. N/A 3. Completed – flood prevention project constructed in 2022.
2021-Byram-005	Dam Inundation	Dam Failure	Township of Byram; NJDEP Dam Safety	<b>Problem:</b> The Township has 17 dams which may pose a risk to life and property.  <b>Solution:</b> Review status of all 17 dams in Township and identify if inundation studies for these dams needs to be conducted.	1.In Progress 2. Inspections are ongoing.	1.Keep in the 2025 HMP. 2. The Township will conduct dam inundation modeling in high-risk areas, prioritizing those dams and their downstream areas that are classified as a high or significant hazard. 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Byram-006	Repetitive Loss Mitigation	Flood, Severe Weather	NFIP Floodplain Administrator, supported by homeowners	<p><b>Problem:</b> Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 3 repetitive loss properties but other properties may be impacted by flooding as well.</p> <p><b>Solution:</b> Conduct outreach to 10 flood-prone property owners, including RL/SRL properties owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	1. In Progress 2. Falls into the repetitive loss properties.	1. Keep in the 2025 HMP. 2. The Township will explore NFIP training opportunities for the Floodplain Administrator to pursue acquisition of RL properties. As well, the Floodplain Administrator will implement educational opportunities and outreach administer to repetitive loss property owners to explore flood mitigation actions and funding available. 3. Not applicable





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Byram-007	Disaster Debris Management Plan	All Hazards	OEM, Public Works	<b>Problem:</b> The Township will develop and adopt a standalone Disaster Debris Management Plan.  <b>Solution:</b> The Township will develop and adopt a standalone Disaster Debris Management Plan.	1. In Progress 2. Slowed progress due to other Township priorities	1. Keep in the 2025 HMP. 2. The Township will continue to work on developing and adoption of a standalone Disaster Debris Management Plan. 3. Not applicable
2021-Byram-008	Flood Damage Prevention Ordinance Update	Flood	FPA, Administration	<b>Problem:</b> The Township will update the Ordinance to include freeboard.  <b>Solution:</b> The Township will update the Ordinance to include freeboard.	1. No Progress 2. No progress due to other Township priorities	1. Include in the 2025 HMP. 2. The Township will update its flood damage prevention ordinance to meet the New Jersey requirement of one foot of freeboard. 3. Not applicable



### 6.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Byram participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Byram would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 6-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 6-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 6-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X		X		X	X
Disease Outbreak										
Drought										
Earthquake	X				X					X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X				X					X
Hazardous Materials	X				X					X
Hurricane	X	X			X				X	X
Infestation										
Nor'easter	X	X			X				X	X
Severe Weather	X	X			X				X	X
Severe Winter Weather	X				X					X
Wildfire	X				X					X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 6-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-ByramTwp-01	NJDEP Dam Repair	1	1	1	0	0	1	1	1	1	1	1	1	1	1	12	High
2025-ByramTwp-02	East Brookwood Engineering Study	1	1	1	0	0	1	1	1	1	1	1	1	1	1	12	High
2025-ByramTwp-03	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-ByramTwp-04	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-ByramTwp-05	Culvert Assessment and Upgrades	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2025-ByramTwp-06	Dam Failure Inundation Mapping	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2025-ByramTwp-07	Disaster Debris Management Plan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2025-ByramTwp-08	Code Coordinated Ordinance	0	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-ByramTwp-09	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-ByramTwp-10	Critical Facilities in the Floodplain	0	1	1	1	1	0	0	0	1	0	1	1	1	0	8	Medium
2025-ByramTwp-11	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-ByramTwp-12	Reservoir Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-ByramTwp-13	Cranberry Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High



Project Number	Project Name	Scores for Evaluation Criteria														Total	High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives		
2025-ByramTwp-14	Frenches Pond Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

*Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).*



## Action 2025-ByramTwp-01. NJDEP Dam Repair

<b>Lead Agency:</b>	Engineer						
<b>Supporting Agencies:</b>	Dam Manager, NJDEP Bureau of Dam Safety, County Engineer						
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials</td><td><input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire</td></tr></table>			<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials	<input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials	<input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire						
<b>Description of the Problem:</b>	<p>Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:</p> <ul style="list-style-type: none"><li>• West Shore Trail Dam (poor)</li><li>• Jefferson Lake Dam (poor)</li><li>• Cranberry Lake Dam (poor)</li></ul>						
<b>Description of the Solution:</b>	<p>The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.</p>						
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected						
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget						
<b>Implementation Timeline:</b>	Within 5 years						
<b>Goals Met:</b>	1, 2, 3						
<b>Benefits:</b>	<p>Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.</p>						
<b>Impact on Socially Vulnerable Populations:</b>	<p>The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.</p>						
<b>Impact on Future Development:</b>	Future development downstream of dams will also be protected from dam failure.						
<b>Impact on Critical Facilities/Lifelines:</b>	Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.						
<b>Impact on Capabilities:</b>	Not applicable						
<b>Climate Change Considerations:</b>	<p>Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.</p>						
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)						
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)						
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low				
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Risk of dam failure remains or increases over time</td></tr></table>	Action	Evaluation	No Action	Risk of dam failure remains or increases over time		
Action	Evaluation						
No Action	Risk of dam failure remains or increases over time						





	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access
	Remove all dams	Without proper analysis, dam removal may increase flooding risk



## Action 2025-ByramTwp-02. East Brookwood Engineering Study

<b>Lead Agency:</b>	Engineer		
<b>Supporting Agencies:</b>	Public Works, OEM		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	There is only one egress located at East Brookwood to help mitigate flooding concerns for over 200 homes. There is also extensive flooding issues on Brookwood Road at intersection of Route 206 nearby due to blockage. Flooded roadways can cause traffic congestion and interrupt the potential evacuation of residents and visitors.		
<b>Description of the Solution:</b>	The Township will explore funding options to conduct an engineering study of East Brookwood drainage issues and implement the most cost-effective mitigation actions identified. Once the preferred alternative is identified, the Township will carry out the implementation of this project. The Township will develop an alternate ingress/egress to East Brookwood in the event of an issue that would block Brookwood Road at the intersection of Rout 206.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	Township budget, staff time, HMGP		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 4		
<b>Benefits:</b>	Residents in East Brookwood will be protected against flood events.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations, such as the elderly, disabled, or children, which reside in East Brookwood may not have the capabilities to respond or evacuate from severe flood events. This action would mitigate flood events and lessen the impacts to these people in the community.		
<b>Impact on Future Development:</b>	Future development planned for East Brookwood, like additional housing, will be protected from future flood concerns.		
<b>Impact on Critical Facilities/Lifelines:</b>	Route 206 is a critical roadway for the Township as a whole. This action will protect this roadway from flood impacts.		
<b>Impact on Capabilities:</b>	EMS and first responders need access to East Brookwood in times of emergency events. This action will ensure they are able to still access this neighborhood during flood events and are able to use Route 206 during deployment.		
<b>Climate Change Considerations:</b>	Climate change will increase the severity and frequency of flood and sever storm events. This action considers this increase and will mitigate future flood concerns.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	The problem persists.	
	Remove neighborhood	Not feasible to remove 200 homes, and there will be a large, displaced population.	
	Relocated neighbor and roadway	Not feasible, there is not available space elsewhere to relocate 200 homes and it is costly to do so	



## Action 2025-ByramTwP-03. Repetitive Loss Properties

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Sussex County		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has three repetitive loss properties, but other properties may be impacted by flooding as well. Flood prone property owners lack the education and resources to mitigate flood impacts. The Township would like to pursue acquisition/elevation of at least one repetitive loss property.		
<b>Description of the Solution:</b>	The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA FMA, FMA SWIFT, Municipal Budget, County Budget, Property Owners		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	2, 3		
<b>Benefits:</b>	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		Current problem continues
	Construct flood walls/barriers around vulnerable areas		Costly and can divert floodwaters to other areas
	Deployable flood barriers for vulnerable areas		Requires a great deal of work to implement prior to each event



## Action 2025-ByramTwp-04. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator										
<b>Supporting Agencies:</b>	Building Department, Township Administration										
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>										
<b>Description of the Problem:</b>	The Township faces increasing flood risks due to more intense precipitation events. Incorporating best practices and the most up-to-date NFIP guidance will better protect the Township, its residents, and their properties from potential damage. However, some of the Township staff are not adequately trained to enforce NFIP regulations and/or floodplain management ordinances.										
<b>Description of the Solution:</b>	Where feasible, the Township will have staff attend trainings at FEMA's EMI in Emmitsburg Maryland for NFIP Basics and the Intermediate Floodplain management course (E0273). Where not feasible, officials will attend virtual trainings and review available resources from FEMA and ASFPM at the ASFPM ( <a href="https://www.floods.org/">https://www.floods.org/</a> ) website.										
<b>Estimated Cost:</b>	Medium										
<b>Potential Funding Sources:</b>	Municipal Budget										
<b>Implementation Timeline:</b>	3 years										
<b>Goals Met:</b>	1, 2, 3										
<b>Benefits:</b>	Providing an opportunity for County and municipal staff and officials to become further educated on floodplain management practices and standards can aid in the development of plans and procedures in a way that is conscious of the flood hazard.										
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.										
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.										
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.										
<b>Impact on Capabilities:</b>	Officials that attend trainings will have a more confident understanding of floodplain management principles and the basics of NFIP requirements and standards.										
<b>Climate Change Considerations:</b>	Climate change is likely to result in stronger and more frequent rainfall events that will contribute to increased flood risk										
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</div>										
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR)</div> <div><input checked="" type="checkbox"/> Property Protection (PP)</div> <div><input checked="" type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Hire outside contractors for floodplain administration</td><td>Costly</td></tr><tr><td>Establish shared service agreements for floodplain administration from neighboring municipalities</td><td>Neighboring municipalities are unlikely to have the staff capacity to take on this role</td></tr></table>	Action	Evaluation	No action	Current problem continues	Hire outside contractors for floodplain administration	Costly	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role		
Action	Evaluation										
No action	Current problem continues										
Hire outside contractors for floodplain administration	Costly										
Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role										



## Action 2025-ByramTwp-05. Culvert Assessment and Upgrades

<b>Lead Agency:</b>	Engineer, DPW Supervisor		
<b>Supporting Agencies:</b>	Public Works		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	There is extensive stormwater runoff going through private properties which means the existing culverts are not working properly. The Township needs more information on the existing culverts and how to mitigate the stormwater runoff.		
<b>Description of the Solution:</b>	The Engineer will survey the existing culverts and determine what culvert improvements are necessary. Public Works will then carry out the identified culvert improvements.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township budget, staff time		
<b>Implementation Timeline:</b>	Short		
<b>Goals Met:</b>	1, 2		
<b>Benefits:</b>	Residents in the Township will be protected against severe stormwater runoff during severe storm events.		
<b>Impact on Socially Vulnerable Populations:</b>	Areas that were previously vulnerable to frequency or severe flooding events will be less likely to be impacted by flooding events. Socially vulnerable populations, such as the elderly or disabled will be protected from increase stormwater runoff and severe flooding.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded due to maintained culvert systems.		
<b>Impact on Critical Facilities/Lifelines:</b>	Evacuation routes and access to health and medical facilities will be maintained, both for healthcare workers and the population who requires treatment for injuries and illness.		
<b>Impact on Capabilities:</b>	Identifying the culverts that are at greatest risk of damage or failure can allow for resource staging to take place where the need is greatest ahead of a flood event.		
<b>Climate Change Considerations:</b>	Climate change is likely to result in more frequent and severe rainfall events. This action upsizes culvert sizes to meet changing stormwater needs as the result of climate change.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Problem persists	
	Remove roadway	Roadway cannot be removed	
	Raingardens	Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.	



## Action 2025-ByramTwp-06. Dam Failure Inundation Mapping

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Floodplain Administrator, Township Administration, NJDEP, Sussex County																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	There is an insufficient amount of data surrounding dam inundation and the resulting flooding within the Township. These structures have the potential to impact those living near and downstream of dams in the jurisdiction and cause damages to property, infrastructure, the environment, and lives.																
<b>Description of the Solution:</b>	The Township will work with NJDEP and the County to conduct dam inundation modeling in high-risk areas, prioritizing those dams and their downstream areas that are classified as a high or significant hazard. Dam inundation models will then be digitized for ease of use.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	Annual Budget, County, Budget, NJDEP																
<b>Implementation Timeline:</b>	Short																
<b>Goals Met:</b>	1, 2																
<b>Benefits:</b>	Identification of dams that are at higher risk of failure and an understanding of their inundation zones provides the opportunity to work with the downstream community to prepare for any potential flooding events and address any ways to mitigate the overall risk of failure.																
<b>Impact on Socially Vulnerable Populations:</b>	The most vulnerable populations may live directly downstream of the dam. Identifying which areas are most likely to experience significant impacts will allow for planning and staging of resources to protect lives and property.																
<b>Impact on Future Development:</b>	New structures are less likely to be built in areas where the risk of inundation is high. This can guide capital improvement projects within the municipality and only allow development in areas where it is safe to build, and guide future building codes, zoning, land use and permitting.																
<b>Impact on Critical Facilities/Lifelines:</b>	Allows for the identification of infrastructure that currently exists which may be vulnerable to impacts so that sufficient planning and preparation to increase resiliency and decrease likelihood of interruption.																
<b>Impact on Capabilities:</b>	Identification of inundation areas provides a framework to plan for the needs of communities that lie within the areas of highest risk.																
<b>Climate Change Considerations:</b>	Increase in extreme rainfall events may alter the floodplain, which impacts the dam inundation zones as water moves downstream.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Problem persists</td></tr><tr><td>Remove dams</td><td>Dams cannot be removed</td></tr><tr><td>Build levee around dams</td><td>There may not be available space to construct a levee around all dams.</td></tr></table>	Action	Evaluation	No Action	Problem persists	Remove dams	Dams cannot be removed	Build levee around dams	There may not be available space to construct a levee around all dams.								
Action	Evaluation																
No Action	Problem persists																
Remove dams	Dams cannot be removed																
Build levee around dams	There may not be available space to construct a levee around all dams.																





## Action 2025-ByramTwp-07. Disaster Debris Management Plan

<b>Lead Agency:</b>	OEM																
<b>Supporting Agencies:</b>	Public Works																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Major disaster events can result in large amounts of debris that overwhelm normal trash collection operations. Depending on the amount generated, temporary staging areas for debris collection may be needed. The municipality does not have a disaster debris management plan in place. During a disaster that results in debris, a plan with outlined responsibilities is needed to adequately address post-disaster cleanup operations.																
<b>Description of the Solution:</b>	The Township will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events for the Township and reduce flood concerns due to debris buildup in stormwater infrastructure.																
<b>Impact on Socially Vulnerable Populations:</b>	Not applicable																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not applicable																
<b>Impact on Capabilities:</b>	This action will result in increased post disaster capabilities. It will also strengthen the existing stormwater infrastructure by limiting debris buildup during severe storm events.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Problem persists</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>	Action	Evaluation	No Action	Problem persists	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available								
Action	Evaluation																
No Action	Problem persists																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-ByramTwp-08. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Building Department, Township Administration, NFIP State Coordinator, FEMA Regional Office		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	<p>A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.</p>		
<b>Description of the Solution:</b>	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.		
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.		
<b>Impact on Capabilities:</b>	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.		
<b>Climate Change Considerations:</b>	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem exists
	Modify existing flood damage prevention ordinance		Time intensive



	Leave NFIP	Residents lose flood insurance coverage
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## Action 2025-ByramTwp-09. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Planning Board, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
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<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.																
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.																
<b>Estimated Cost:</b>	Staff time, Low																
<b>Potential Funding Sources:</b>	Township Budget																
<b>Implementation Timeline:</b>	Within 2 years																
<b>Goals Met:</b>	1, 2, 5																
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.																
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.																
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.																
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.																
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Only share opportunities when notified of grant funding</td><td>May not be enough time to garner interest or write application</td></tr><tr><td>Wait for information from the State on flood-damaged properties</td><td>May be a delay in notice</td></tr></table>	Action	Evaluation	No action	Current problem remains	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	Wait for information from the State on flood-damaged properties	May be a delay in notice								
Action	Evaluation																
No action	Current problem remains																
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application																
Wait for information from the State on flood-damaged properties	May be a delay in notice																



## Action 2025-ByramTwp-10. Critical Facilities in the Floodplain

<b>Lead Agency:</b>	Facility Managers		
<b>Supporting Agencies:</b>	Emergency Management, Floodplain Administrator		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has a number of critical facilities in the floodplain including Byram Lakes Elementary School, Pump Station 5, Pump Station 6, And Byram Twp Intermediate School.		
<b>Description of the Solution:</b>	Coordinate with the facility managers at the Byram Lakes Elementary School, Pump Station 5, Pump Station 6, And Byram Twp Intermediate School in the Township to support the mitigation of vulnerable structures via retrofit (e.g., elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Township Budget, Facilities		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action will remove or reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders.		
<b>Impact on Socially Vulnerable Populations:</b>	Retrofitting or relocating the identified structures will benefit socially vulnerable populations, as individuals within these populations rely on resources from various government facilities, transportation facilities, and medical and senior care facilities.		
<b>Impact on Future Development:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Critical Facilities/Lifelines:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Floodproof existing structures	May not necessarily reduce risk	
	Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function	



## Action 2025-ByramTwp-11. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM										
<b>Supporting Agencies:</b>	NJDEP, Dam Owners										
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire										
<b>Description of the Problem:</b>	Cub Lake Dam, Frenches Pond Dam, Johnson Lake Dam, Kofferls Pond Dam, Lake Lackawanna Dam, Panther Lake Dam, Reservoir Lake Dam, Tomahawk Lake Dam, and Wolf Lake Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has three high-hazard potential dams, the Cranberry Lake Dam, Frenches Pond Dam, and Reservoir Lake Dam, within its jurisdiction. These structures have the potential to impact those living nearby.										
<b>Description of the Solution:</b>	The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM.										
<b>Estimated Cost:</b>	Low										
<b>Potential Funding Sources:</b>	Municipal budget										
<b>Implementation Timeline:</b>	Within 5 years										
<b>Goals Met:</b>	1, 2, 3, 5, 7										
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.										
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.										
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.										
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.										
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.										
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.										
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)										
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th><th>Evaluation</th></tr> </thead> <tbody> <tr> <td>No Action</td><td>Township will be unaware of any safety concerns for the dam or its condition</td></tr> <tr> <td>Utilize information from NJDEP</td><td>Owners may not be required to submit a safety plan to the State</td></tr> <tr> <td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr> </tbody> </table>	Action	Evaluation	No Action	Township will be unaware of any safety concerns for the dam or its condition	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory		
Action	Evaluation										
No Action	Township will be unaware of any safety concerns for the dam or its condition										
Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State										
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory										





## Action 2025-ByramTwp-12. Reservoir Lake Dam Rehab

<b>Lead Agency:</b>	Patriots' Path Council, B.S.A		
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Reservoir Lake Dam is a Class I High Hazard Dam that is located on Chemy Creek. The dam is owned by the Patriots' Path Council, B.S.A. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including Wheller Road. Tiny Creek leads from Chemy Creek to Frenches Pond where another High Hazard Potential Dam, Frenches Pond Dam, is situated. The failure of this dam could lead to a compounded failure of Frenches Pond Dam due to the weight of the influx of water. Although the Reservoir Lake Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.		
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Patriots' Path Council, B.S.A to complete an engineering study of Reservoir Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Patriots' Path Council, B.S.A will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 8		
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.		
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.		
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem continues	



	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Chemy Creek as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## Action 2025-ByramTwp-13. Cranberry Lake Dam Rehab

<b>Lead Agency:</b>	New Jersey Division of Parks and Forestry																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Cranberry Lake Dam is a Class I High Hazard Dam that is located on Cranberry Lake. The dam is owned by the New Jersey Division of Parks and Forestry. Failure of the dam could result in inundation of forested area, densely populated areas, commercial properties, recreational area, South Shore Road, and State Route 206. The dam was last inspected in 2022 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the New Jersey Division of Parks and Forestry to complete an engineering study of Cranberry Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the New Jersey Division of Parks and Forestry will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Cranberry Lake as an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Cranberry Lake as an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Cranberry Lake as an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-ByramTwp-14. Frenches Pond Dam Rehab

<b>Lead Agency:</b>	Patriots' Path Council, B.S.A																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Frenches Pond Dam is a Class I High Hazard Dam that is located on Frenches Pond. The dam is owned by the Patriots' Path Council, B.S.A. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including Wheller Road and Camp Allamuchy Road, and potentially Interstate-80. Another High Hazard Potential Dam, the Reservoir Lake Dam, is connected to Frenches Pond upstream by Tiny Creek. Although the Frenches Pond Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Patriots' Path Council, B.S.A to complete an engineering study of Frenches Pond Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Patriots' Path Council, B.S.A will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr></table>	Action	Evaluation	No Action	Current problem continues												
Action	Evaluation																
No Action	Current problem continues																



	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Frenches Pond as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions





## 7. TOWNSHIP OF FRANKFORD

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Frankford with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Frankford, describes who participated in the planning process, assesses Frankford's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 7.1 HAZARD MITIGATION PLANNING TEAM

The Township of Frankford identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 7-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 7-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Jeff Lewis, OEM Coordinator Address: 151 US Highway 206, Augusta NJ 07822 Phone Number: 973-479-7203 Email: Jlewis310@embarqmail.com	Name/Title: Lori Nienstedt, Administrator/Clerk Address: 151 US Highway 206, Augusta NJ 07822 Phone Number: 973-948-5566 Email: clerk@frankfordtwp-nj.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Dave Simmons, Floodplain Administrator Address: 17 Plains Road, Augusta, NJ 07822 Phone Number: 973-948-6463 Email: -	
<b>Additional Contributors</b>	
Name/Title: Jeff Lewis, OEM Coordinator Method of Participation: Provided previous hazard history information and hazard mitigation capabilities of the Borough. Provided information on building permits and planned development. Provided NFIP information. Participated in planning partnership meetings and the mitigation action workshop. Reviewed and signed off on the final draft annex.	
Name/Title: Dave Simmons, Floodplain Administrator Method of Participation: Reviewed and signed off on the final draft annex.	
Name/Title: Harold Pellow, Municipal Engineer Method of Participation: Reviewed and signed off on the final draft annex.	
Name/Title: Robert Huber, Construction Official Method of Participation: Reviewed and signed off on the final draft annex	
Name/Title: David Silverthorne, Mayor Method of Participation: Reviewed and signed off on the final draft annex	



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Name/Title: Mark Yetter, Public Works/Highway Manager  
Method of Participation: Reviewed and signed off on the final draft annex

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Name/Title: Lori Nienstedt, Township Clerk  
Method of Participation: Reviewed and signed off on the final draft annex

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## 7.2 COMMUNITY PROFILE

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Frankford Township is geographically located in the center of Sussex County. It encompasses 34.8 square miles and contains two natural lakes, Culver Lake and Lake Owassa, and the Kittatinny Mountains. The Township is bordered to the north by Montague Township, to the northeast by the Township of Wantage, to the east by Lafayette Township, to the south by Hampton Township and to the west by the Townships of Sandyston and Walpack. Papakating Creek, Dry Brook, Paulins Kill, and Culvers Creek all flow throughout the Township. The following unincorporated communities are located within the Township: Culvers Inlet, Mount Pisgah, Augusta, Ross' Corner, Northrup, Plains, Armstrong, Pelletown, and Wykertown. According to the U.S. Census, the 2020 population for Frankford was 5,302, a 4.2-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 3.6-percent of the population is 5 years of age or younger, 3.9-percent is 65 years of age or older, 0-percent is non-English speaking, 2.0-percent is below the poverty threshold, and 3.5-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Township of Frankford, 21-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 7.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Frankford performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events



For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Frankford to identify opportunities for integrating mitigation concepts into ongoing Township procedures.

### 7.3.1 Planning and Regulatory Capability and Integration

Table 7-2 summarizes the planning and regulatory tools that are available to Frankford.

Table 7-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	Chapter 12-Building and Housing, 1982	State & Local	Building Department
How has or will this be integrated with the HMP and how does this reduce risk? It is the purpose of Chapter 12 to regulate building and housing within the Township. It also establishes the Building Department which serves as the Township's State Uniform Construction Code Enforcing Agency.				
<b>Zoning/Land Use Code</b>	Yes	Chapter 30, Article 10 – Land Use/Zoning, June 11, 2024.	Local	Land Use Board & Zoning Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan.</i>				
<b>Subdivision Code</b>	Yes	Chapter 30, Article V- Land Subdivision	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.</i>				
<b>Site Plan Code</b>	Yes	Chapter 30 Article V.	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Stormwater Management Code</b>	Yes	Chapter 32 Stormwater Control, March 9, 2021	Local	Public Works

How has or will this be integrated with the HMP and how does this reduce risk?

*It is the purpose of Chapter 32 to establish minimum stormwater management requirements and controls for major development within the Township.*

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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- *Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- *Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*
- *Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*

<b>Growth Management</b>	Yes	Chapter 30-1003 Zoning Ordinance; Plan Endorsement Process via the State Development & Redevelopment Plan	Yes	Land Use Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*Provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy.*

<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 20-Environmental Protection; Chapter BH9-Litter Control	Local	Land Use Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*This section entitles the Township of Frankford to reimbursement for any expendable items used by the Township or any of its agencies in extinguishing any fire, stopping, or containing any leak or controlling any spill of hazardous materials. This section provides for the replacement or reimbursement of the specialized and sometimes nonreusable equipment required by State and Federal regulations to be made available in the Township in case of fire, leakage or spillage involving any hazardous material.*

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 27 – Flood Damage Prevention, adopted in 2011. Flood Control Hazards Act adopted in 2007, amended in 6/20/2016	Federal, State & Local	Township Engineer
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How has or will this be integrated with the HMP and how does this reduce risk?

*It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to: a. Protect human life and health; b. Minimize expenditure of public money for costly flood control projects; c. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; d. Minimize prolonged business interruptions; e. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard; f. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas; g. Ensure that potential buyers are notified that property is in an area of special flood hazard; and h. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*

<b>Wellhead Protection</b>	Yes	Chapter 30-617-Aquifer and Wellhead Protection (Ord. No. 20007-04)	Local	Land Use Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*Was adopted to provide the Township with guidelines for an aquifer protection and aquifer/well testing ordinance to determine adequate groundwater supply for residential and commercial development in areas not served by public water supply.*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Emergency Management Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Change Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	Master Plan adopted in 2004.	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The county planning board shall make and adopt a master plan for the physical development of the county. The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county. The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan and to advise the board of chosen commissioners with respect to the formulation of development programs and budgets for capital expenditures. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28 provides the required components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity.</i>				
<b>Capital Improvement Plan</b>	Yes	CIP, updated annually (2021-009)	Local	Engineering Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Township Capital Improvement Plan outlines and prioritizes capital improvement projects and funding available for the Township.</i>				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Open Space Plan</b>	Yes	Open Space Plan, updated in 2016; Master Plan	Local	Open Space Commission
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Township Open Space Plan guides the preservation and development practices for areas defined as open space within the Township. This Open Space Plan is an element in the Township Master Plan.</i>				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	Yes	Economic Strategic Development Plan, 2023	County	Economic Development Partnership
How has or will this be integrated with the HMP and how does this reduce risk? <i>Sussex County is in the process of developing an Economic Strategic Development Plan. The Township will be included in this plan and will participate in its development.</i>				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Agriculture Plan</b>	Yes	Comprehensive Farmland Preservation Plan, March 2023	Local	Open Space Committee
How has or will this be integrated with the HMP and how does this reduce risk? <i>This plan permits the purchase and preservation of farmland with the Township. The preservation of this land restricts it from being developed.</i>				
<b>Climate Action/Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Emergency Operations Plan, 2024	Local	OEM
How has or will this be integrated with the HMP and how does this reduce risk? <i>This plan outlines the guidelines for emergency operations and response for the Township. The local EOP was just recently updated. The next update is scheduled for August 2026.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 7.3.2 Development and Permitting Capability

Table 7-3 summarizes the capabilities of Frankford to oversee and track development.

Table 7-3. Development and Permitting Capability

	Yes/No	Comment
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Do you issue development permits?	Yes	Construction Office
<ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>		
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	The Township issues floodplain development permits.
Do you have a buildable land inventory?	Yes	The Township completed a Buildable Lands Inventory as part of its affordable housing planning initiative.
<ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>		
Describe the level of buildout in your jurisdiction.	N/A	There is available space for build-out within the Township

### 7.3.3 Administrative and Technical Capability

Table 7-4 summarizes potential staff and personnel resources available to Frankford and their current responsibilities that contribute to hazard mitigation.

Table 7-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	There are nine members on the Land Use Board, with up to four alternates. The Land Use Board follows the provisions of Chapter 30 in the municipal code and the Municipal Land Use Law, and accordingly exercise its powers regarding the Master Plan; subdivision control and site plan review; the Official Map, if there be one; the Zoning Ordinance; conditional uses; capital improvements program; variances and certain building permits in conjunction with subdivision, site plan and conditional use approval.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	Yes	Open Space Board: residents of the Township, and shall consist of the following: a. The Mayor or a Committee Member acting as the Mayor's designee; b. Five residents of the Township appointed by the Township Committee; c. Two members of the Frankford Township Land Use Board; d. One member of the Park Commission.; Parks Commission: controls the Superintendent in charge of all public parks located within the Township and any lands or lots, heretofore or hereafter devised, bequeathed or leased to the Township for park purposes, and shall direct the ornamenting, adorning, laying out and pruning of the grounds of the said parks in accordance with any applicable lease terms or deed restrictions, and for that purpose may employ such workmen or may use more municipal



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		employees and purchase or contract for material as they may deem necessary; provided that in no case shall the amount paid for the workmen or to be paid for such purchase or contract exceed the amount of money appropriated for this purpose. The Commission shall ensure that all rents are collected from any building on said park and shall ensure that rents are deposited in the appropriate park fund in the Township Treasury, provided that any revenue collected from the property leased to the Township by the Department of Environmental Protection will go into a separate account designated for that purpose in the Township Treasury.
Economic Development Commission/Committee	Yes	Economic Development Committee: will develop plans and programs to encourage the expansion of business; develop plans to attract new business; analyze and submit regular reports to the Township Committee on any obstacles of expansion; make recommendations to the Township Committee; one member may be liaison with the Sussex County Economic Development Advisory Committee; and will make annual report to the Mayor and Township Committee with details on the operations and transactions for their preceding 12 months.
Public Works/Highway Department	Yes	The Department of Public Works oversees the maintenance and management of public spaces.
Construction/Building/Code Enforcement Department	Yes	The Construction Office is responsible for issuing permits, performing inspections, and monitoring the online portal. The Zoning and Code Enforcement Office is responsible for enforcing the zoning code.
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management interacts at the local level with police, fire, EMS, public works, public health, schools, etc. The OEM prepares for and carries out all emergency functions. Frankford Township and the County OEM division also uses a community alert program Swift911™ that is of tremendous service to the public.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Department of Public Works
Mutual aid agreements	Yes	Rescue Squad, Volunteer Fire Department with surrounding communities in conjunction with County
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Professional services agreement with Engineer



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Engineers or professionals trained in building or infrastructure construction practices	Yes	Professional services agreement with Engineer
Planners or engineers with an understanding of natural hazards	Yes	Professional services agreement with Engineer
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	Yes	The Construction Department is responsible for conducting and determining damage assessments.
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Mayor & Council
Emergency manager	Yes	The Township has an Emergency Management Office
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Stormwater Engineer – Harold Pellow & Associates

### 7.3.4 Fiscal Capability

Table 7-5 summarizes financial resources available to Frankford.

Table 7-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	No
Open Space Acquisition funding programs	Yes



Financial Resources	Accessible or Eligible to Use? (Yes/No)
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 7.3.5 Education and Outreach Capability

Table 7-6 summarizes the education and outreach resources available to Frankford.

Table 7-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	No	-
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	Yes	Information on website about Coronavirus.
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Swift 911 (through County)
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

### 7.3.6 Community Classifications

Table 7-7 summarizes classifications for community programs available to Frankford.

Table 7-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable



### 7.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 7-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 7-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

## 7.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 7-1 is responsible for maintaining this information.

### 7.4.1 NFIP Statistics

Table 7-9 summarizes the NFIP policy and claim statistics for Frankford.

Table 7-9. Frankford NFIP Summary of Policy and Claim Statistics

# Policies	12
# Claims (Losses)	13
Total Loss Payments	\$74,895.88
# Repetitive Loss Properties (NFIP definition)	0



# Policies	12
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA 2024

## 7.4.2 Flood Vulnerability Summary

Table 7-10 provides a summary of the NFIP program in Frankford.

Table 7-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	There are several streams located within the Township which are subject to overflow and flood the surrounding areas.
Do you maintain a list of properties that have been damaged by flooding?	No, not at this time.
Do you maintain a list of property owners interested in flood mitigation?	No, not at this time.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown, at this time
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No, not at this time.
How do you make Substantial Damage determinations?	The Construction Official is responsible for making these determinations.
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown, at his time
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown, at his time
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	The Engineering Department is responsible for floodplain management.





NFIP Topic	Comments
Are any certified floodplain managers on staff in your jurisdiction?	No, not at this time.
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, online federal, state, and regional online resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Yes, additional training for staff is encouraged.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	The Township provides permit inspections.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	The Land Use Board is responsible for this determination.
What are the barriers to running an effective NFIP program in the community, if any?	None, at this time.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	September 7, 2010.
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 27 Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	October 17, 1989
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	No.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No, not at this time.

## 7.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 7-11 through Table 7-13.

Table 7-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0



	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	5	2	0	7
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 7-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None identified					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 7-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None anticipated.					

## 7.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Frankford's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 7.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 7-1 through Figure 7-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Frankford has significant exposure. The maps show the location of potential new development, where available.

Figure 7-1. Frankford Flood and Sinkhole Hazard Area Extent and Location Map

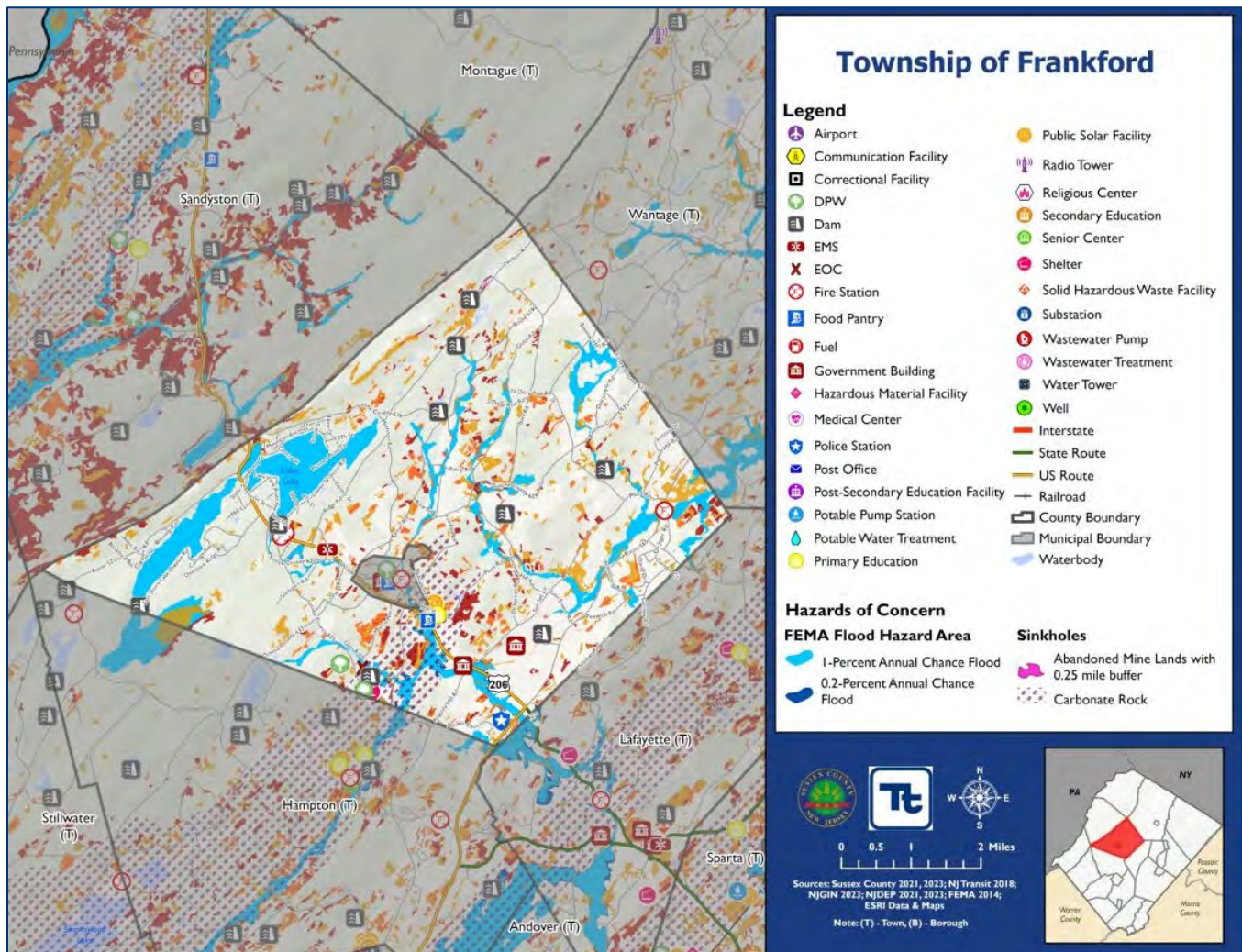




Figure 7-2. Frankford Wildfire and HAZMAT Hazard Area Extent and Location Map

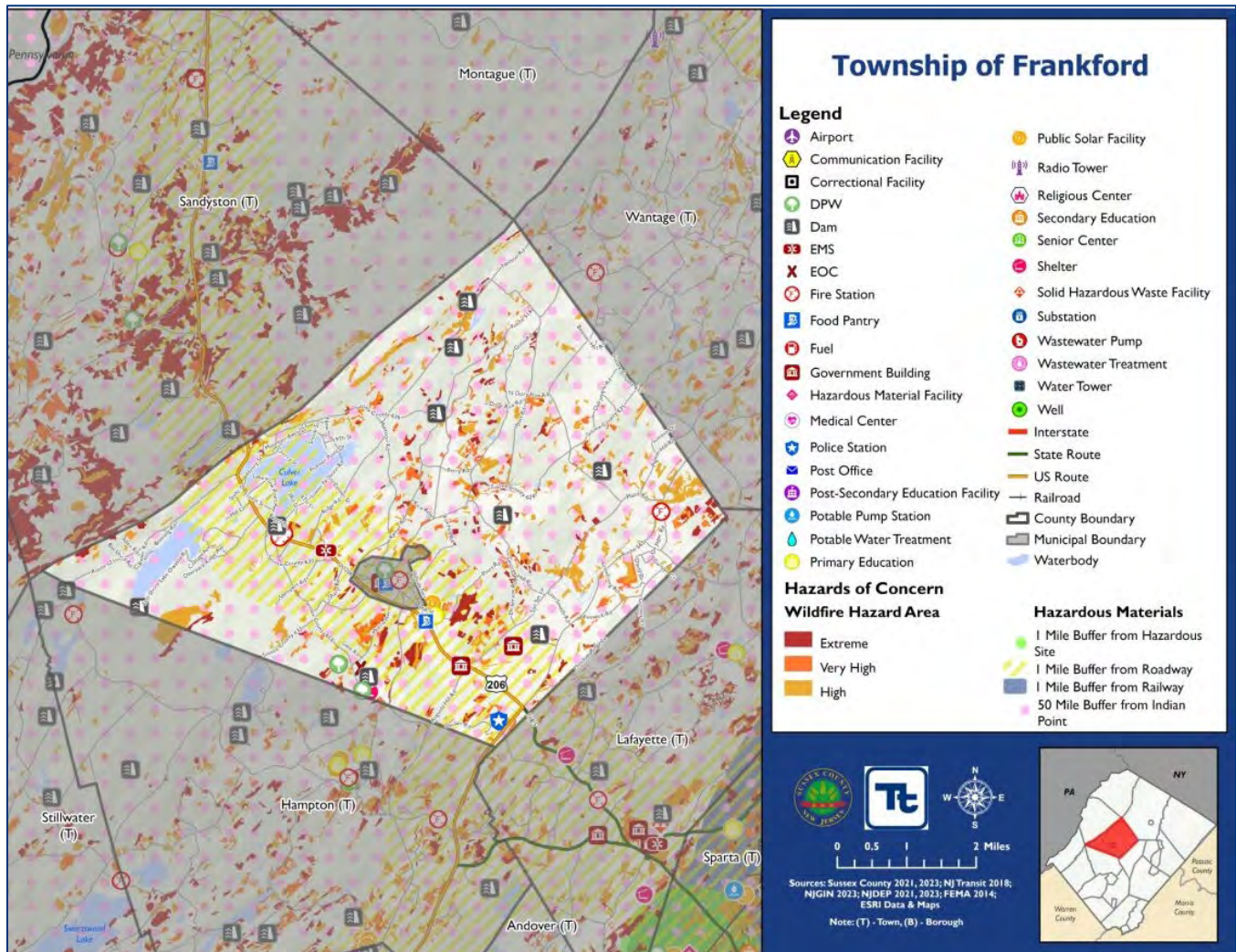
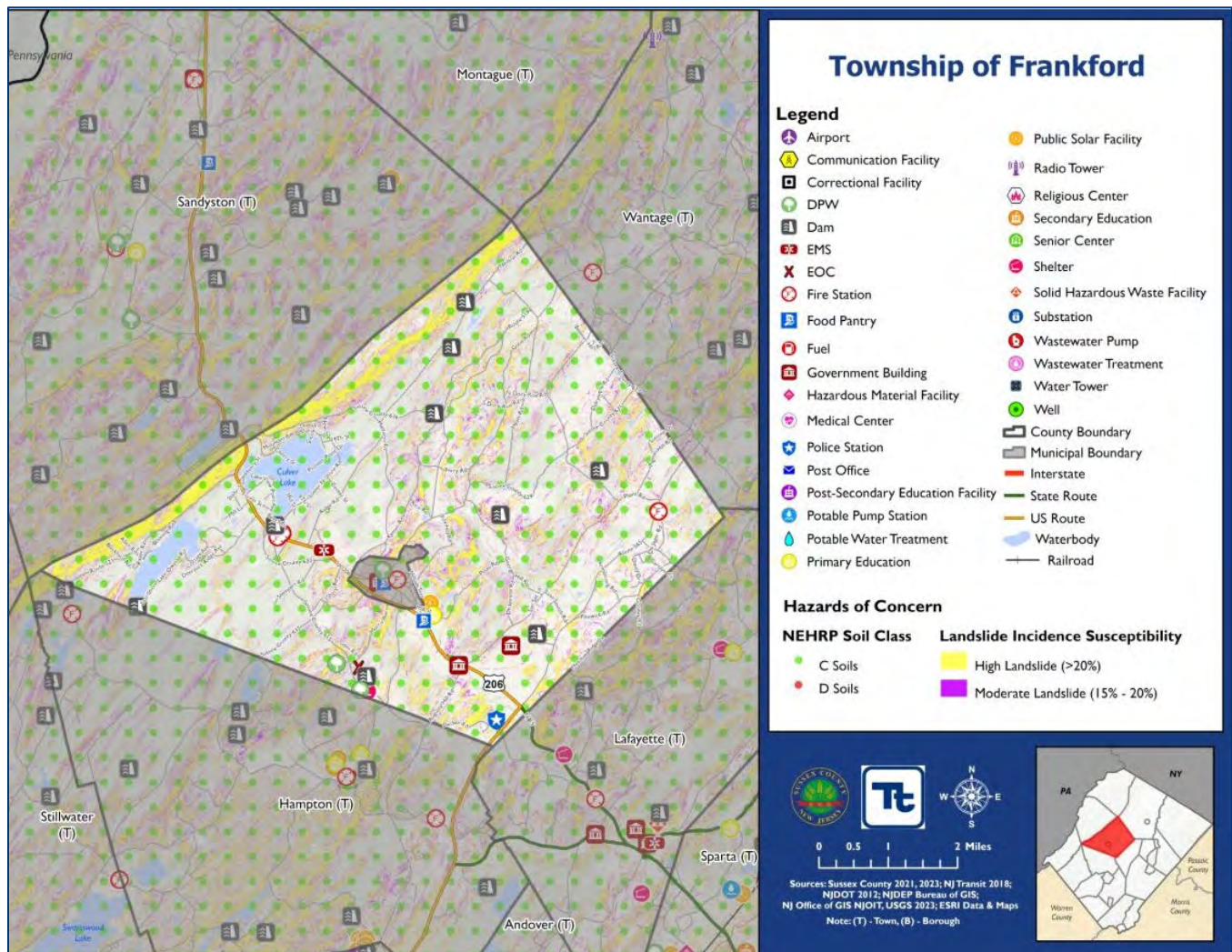




Figure 7-3. Frankford NEHRP and Landslide Hazard Area Extent and Location Map







## Hazard Event History

The history of natural and non-natural hazard events in Frankford is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 7-14 provides details on loss and damage in Frankford during hazard events since the last hazard mitigation plan update.

Table 7-14. Hazard Event History in Frankford

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Frankford
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Township was subject to state mandated masking and 6ft social distancing requirements.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	No major damage was recorded by the Township. However, this does not mean that the community was not affected in some capacity by the event.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	No major damage was recorded by the Township. However, this does not mean that the community was not affected in some capacity by the event.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	No major damage was recorded by the Township. However, this does not mean that the community was not affected in some capacity by the event.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

### 7.6.2 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Frankford .



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Frankford reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the following:

- The Township agreed with the calculated hazard rankings outlined in Table 7-15.

Table 7-15 shows Frankford's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 7-15. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Low
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 7-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 7-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Culvers Lake Dam	Dam	Y	Y	2025-FrankfordTwp-05; 2025-FrankfordTwp-09	-





Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Lake Owassa Dam	Dam	Y	Y	2025-FrankfordTwp-05; 2025-FrankfordTwp-09	-
Main Library	Shelter	Y	Y	2025-FrankfordTwp-09	-
Sussex County Farm Dam	Dam	Y	Y	2025-FrankfordTwp-05; 2025-FrankfordTwp-09	-

Source: Sussex County 2021, 2023; NJGIN 2023

### 7.6.3 Identified Issues

After review of Frankford's hazard event history, hazard rankings, hazard location, and current capabilities, Frankford identified the following vulnerabilities within the community:

- Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:
  - New Jersey No Name # 11 Dam (poor)
- Drainage issues are experienced in the Culvers Lake area leading to roadway flooding on East Shore Culver Road, Lakeview Point Avenue, Lower North Shore Road, Culver View Lane, and additional small roads leading toward Culver Lake. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.
- Major disaster events can result in large amounts of debris that overwhelm normal trash collection operations. The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- Culvers Lake Dam, Lake Owassa Dam, and Sussex County Farm Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. These structures have the potential to impact those living nearby. These dams provide recreational uses, and downstream flood protection. The structural conditions of these dams needs to be assessed for safety, with findings reported to the Township.
- The Blue Ridge Rescue Squad, located at 350 US Highway 206, lacks a backup power source. The facility is considered to be a critical facility. Backup power sources are necessary to maintain critical services for critical facilities.
- The Township does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The Township is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.



- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has a number of critical facilities in the floodplain including Culvers Lake Dam, Lake Owassa Dam, Main Library, and Sussex County Farm Dam.
- The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Township. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.
- The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.

## 7.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 7.7.1 Past Mitigation Action Status

Table 7-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 7.7.2 Additional Mitigation Efforts

Frankford did not identify any additional mitigation efforts completed since the last HMP. Since the adoption of the County's first HMP, Frankford has made significant mitigation progress in the following areas:

- Public Outreach and Education
- Code Ordinance Updates
- Emergency Management Planning



Table 7-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Frankford-001	Dam Inspection and Outreach	Flood, Hurricane, Nor'easter, Severe Winter Weather, Dam Failure, Severe Weather, Tropical Storms	Township OEM/Administration, NJDEP; Township Private owners	<p><b>Problem:</b> There are a number of dams in Frankford that are located in flood zones, provide recreational uses, and downstream flood protection. The structural conditions of these dams need to be assessed for safety, with findings reported to the Township.</p> <p><b>Solution:</b> The Township will complete outreach and work with dam owners to ensure that structural assessments are completed. Where repairs are necessary, the Township Engineer will work with the property owner to design repairs and the Township will assist in identification of funding support where necessary.</p>	<p>1. In Progress</p> <p>2. The Township is slowly making progress with the project; however, other Township priorities have taken precedent.</p>	<p>1. Keep in the 2025 HMP</p> <p>2. The Township will continue to complete outreach and work with dam owners to ensure that structural assessments are completed. Where repairs are necessary, the Township Engineer will work with the property owner to design repairs and the Township will assist in identification of funding support where necessary.</p> <p>3. Not applicable</p>
2021-Frankford-002	Disaster Debris Management Plan	Flood, Hurricane, Nor'easter, Severe Winter Weather, Wildfire, Severe Weather	OEM, Public Works	<p><b>Problem:</b> The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.</p> <p><b>Solution:</b> The Township will develop a debris management plan that will assist the municipality when they need to facilitate response and recovery after a debris-causing incident. The plan will provide direction to facilitate and coordinate the management of debris following a disaster.</p>	<p>1. In Progress</p> <p>2. Due to the heavy involvement of multiple stakeholders, this project is in progress and has not been completed.</p>	<p>1. Keep in the 2025 HMP.</p> <p>2. The Township will continue to develop a debris management plan that will assist the municipality when they need to facilitate response and recovery after a debris-causing incident. The plan will provide direction to facilitate and coordinate the management of debris following a disaster.</p> <p>3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Frankford-003	Flood Damage Prevention Ordinance Update	Flood	Administration	<p><b>Problem:</b>The Township's Flood Damage Prevention Ordinance lacks language to include the state mandated freeboard requirement.</p> <p><b>Solution:</b>The Township will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement.</p>	1. In Progress 2. This project has not yet been completed due to other Township prioritized projects.	1. Keep in the 2025 HMP 2. After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the Township will update and adopt the Code Coordinated Ordinance. 3. Not applicable
2021-Frankford-004	Blue Ridge Rescue Squad Backup Power	Hurricane, Nor'easter, Severe Winter Weather, Severe Weather	Engineer, Blue Ridge Rescue Squad	<p><b>Problem:</b>Backup power sources are necessary to maintain critical services for critical facilities. The Blue Ridge Rescue Squad located at 350 US Highway 206 Branchville, NJ 07826 lacks a backup power source. The facility is considered to be a critical facility.</p> <p><b>Solution:</b> The Engineer will work with the Rescue Squad to research what size generator is needed to power the facility. The Township will then provide assistance pursuing funds and guide the purchase and installation of the selected generator and necessary electrical components to supply backup power to the Blue Ridge Rescue Squad.</p>	1. In Progress 2. Challenges with funding availability.	1.Keep in the 2025 HMP. 2. The Engineer will work with the Rescue Squad to research what size generator is needed to power the facility. The Township will explore funding opportunities to purchase and install the selected generator and necessary electrical components to supply backup power to the Blue Ridge Rescue Squad. 3. Not applicable



### 7.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Frankford participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Frankford would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 7-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 7-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 7-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X		X		X	X
Disease Outbreak				X			X			
Drought		X		X			X			
Earthquake	X	X		X	X		X			X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X	X		X	X		X			X
Hazardous Materials	X	X		X	X		X			X
Hurricane	X	X		X	X		X		X	X
Infestation				X			X			
Nor'easter	X	X		X	X		X		X	X
Severe Weather	X	X		X	X		X		X	X
Severe Winter Weather	X	X		X	X		X			X
Wildfire	X	X		X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities





Table 7-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-FrankfordTwp-01	NJDEP Dam Repair	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-FrankfordTwp-02	Replace Drainage Pipes at Culver Lake	1	1	1	1	1	1	0	1	0	1	1	1	1	1	12	High
2025-FrankfordTwp-03	Code Coordinated Ordinance	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-FrankfordTwp-04	Disaster Debris Management Plan	1	1	1	1	1	1	0	0	1	1	1	1	0	1	11	High
2025-FrankfordTwp-05	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-FrankfordTwp-06	Backup Generator for the Blue Ridge Rescue Squad	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-FrankfordTwp-07	Substantial Damage Management Plan	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-FrankfordTwp-08	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-FrankfordTwp-09	Critical Facilities in the Floodplain	0	1	1	1	1	0	0	0	1	0	1	1	1	0	8	Medium
2025-FrankfordTwp-10	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-FrankfordTwp-11	Certified Floodplain Manager Credentialing	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



## Action 2025-FrankfordTwp-01. NJDEP Dam Repair

<b>Lead Agency:</b>	Engineer																
<b>Supporting Agencies:</b>	Dam Manager, NJDEP Bureau of Dam Safety, County Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections: <ul style="list-style-type: none"><li>New Jersey No Name # 11 Dam (poor)</li></ul>																
<b>Description of the Solution:</b>	The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.																
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected																
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3																
<b>Benefits:</b>	Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.																
<b>Impact on Socially Vulnerable Populations:</b>	The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.																
<b>Impact on Future Development:</b>	Future development downstream of dams will also be protected from dam failure.																
<b>Impact on Critical Facilities/Lifelines:</b>	Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input checked="" type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Risk of dam failure remains or increases over time</td></tr><tr><td>Work without County Engineer involvement</td><td>Improvements made but may lack appropriate support from County, including data and potential funding access</td></tr></table>	Action	Evaluation	No Action	Risk of dam failure remains or increases over time	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access										
Action	Evaluation																
No Action	Risk of dam failure remains or increases over time																
Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access																



	Remove all dams	Without proper analysis, dam removal may increase flooding risk
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## Action 2025-FrankfordTwp-02. Replace Drainage Pipes at Culver Lake

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Drainage issues are experienced in the Culvers Lake area leading to roadway flooding on East Shore Culver Road, Lakeview Point Avenue, Lower North Shore Road, Culver View Lane, and additional small roads leading toward Culver Lake. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.																
<b>Description of the Solution:</b>	The Township Engineer will complete an engineering survey to determine whether replacing existing tiles with plastic piping will assist in resolving the drainage issues along Culvers Lake. The Township Public Works will complete the necessary work.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	HMGP, BRIC, Township Budget																
<b>Implementation Timeline:</b>	3 years																
<b>Goals Met:</b>	1, 2																
<b>Benefits:</b>	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.																
<b>Impact on Socially Vulnerable Populations:</b>	Areas that were previously vulnerable to frequency or severe flooding events will be less likely to be impacted by flooding events.																
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.																
<b>Impact on Critical Facilities/Lifelines:</b>	Transportation routes are more likely to remain open, which allows evacuation routes to remain intact. Furthermore, Access to health and medical facilities will be maintained, both for healthcare workers and the population who requires treatment for injuries and illness.																
<b>Impact on Capabilities:</b>	Identifying drainage locations that are at greatest risk of damage or failure can allow for resource staging to take place where the need is greatest ahead of a flood event.																
<b>Climate Change Considerations:</b>	Climate change is likely to result in more frequent and severe rainfall events. This action resolves drainage issues to meet changing stormwater needs as the result of climate change.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Remove roadway</td><td>Roadway cannot be removed</td></tr><tr><td>Raingardens</td><td>Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Remove roadway	Roadway cannot be removed	Raingardens	Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.								
Action	Evaluation																
No Action	Current problem remains																
Remove roadway	Roadway cannot be removed																
Raingardens	Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.																



## Action 2025-FrankfordTwp-03. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Construction Official, Township Administration, NFIP State Coordinator, FEMA Regional Office																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.																
<b>Description of the Solution:</b>	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	2, 5																
<b>Benefits:</b>	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.																
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.																
<b>Impact on Capabilities:</b>	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.																
<b>Climate Change Considerations:</b>	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem exists</td></tr><tr><td>Modify existing flood damage prevention ordinance</td><td>Time intensive</td></tr></table>	Action	Evaluation	No Action	Current problem exists	Modify existing flood damage prevention ordinance	Time intensive										
Action	Evaluation																
No Action	Current problem exists																
Modify existing flood damage prevention ordinance	Time intensive																



	Leave NFIP	Residents lose flood insurance coverage
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## Action 2025-FrankfordTwp-04. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>			Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available						
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
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## Action 2025-FrankfordTwp-05. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM																
<b>Supporting Agencies:</b>	NJDEP, Dam Owners																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
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<b>Description of the Problem:</b>	Culvers Lake Dam, Lake Owassa Dam, and Sussex County Farm Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. These structures have the potential to impact those living nearby. These dams provide recreational uses, and downstream flood protection. The structural conditions of these dams needs to be assessed for safety, with findings reported to the Township.																
<b>Description of the Solution:</b>	The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM. Where repairs are necessary, the Township Engineer will work with the property owner to design repairs and the Township will assist in identification of funding support where necessary.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5, 7																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Township will be unaware of any safety concerns for the dam or its condition</td></tr><tr><td>Utilize information from NJDEP</td><td>Owners may not be required to submit a safety plan to the State</td></tr><tr><td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr></table>	Action	Evaluation	No Action	Township will be unaware of any safety concerns for the dam or its condition	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory								
Action	Evaluation																
No Action	Township will be unaware of any safety concerns for the dam or its condition																
Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State																
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory																



## Action 2025-FrankfordTwp-06. Backup Generator for the Blue Ridge Rescue Squad

<b>Lead Agency:</b>	Township Engineer										
<b>Supporting Agencies:</b>	Rescue Squad										
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials</td><td><input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire</td></tr></table>			<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire						
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<b>Description of the Problem:</b>	The Blue Ridge Rescue Squad, located at 350 US Highway 206, lacks a backup power source. The facility is considered to be a critical facility. Backup power sources are necessary to maintain critical services for critical facilities.										
<b>Description of the Solution:</b>	The Township Engineer will work with the Rescue Squad to research what size generator is needed to power the facility. The Township will explore funding opportunities to purchase and install the selected generator and necessary electrical components to supply backup power to the Blue Ridge Rescue Squad.										
<b>Estimated Cost:</b>	Medium										
<b>Potential Funding Sources:</b>	Township budget, HMGP, State funding										
<b>Implementation Timeline:</b>	Within 5 years										
<b>Goals Met:</b>	1, 2, 3, 4										
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.										
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations, such as the elderly, disabled, or children, are at higher risk to hazard events. The Blue Ridge Rescue Squad serves and protects these residents during and after a hazard event occurs. This action will strengthen their response and assistance by allowing them to have backup power during a power outage.										
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.										
<b>Impact on Critical Facilities/Lifelines:</b>	The Blue Ridge Rescue Squad is a critical facility that serves the community in the area. This action will ensure they can uphold their standards of operation during a power outage.										
<b>Impact on Capabilities:</b>	This action will increase the Blue Ridge Rescue Squad capabilities during hazard events which may cause power outages, such as severe storms, or flooding.										
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase mitigation actions to protect from dam failure due to these weather-related disaster events.										
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)				
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)		
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)										
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)										
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Problem persists</td></tr><tr><td>Install solar panels</td><td>Not always a reliable backup source for power and is costly.</td></tr><tr><td>Install wind-power energy</td><td>Not always a reliable backup source for power and is costly.</td></tr></table>	Action	Evaluation	No action	Problem persists	Install solar panels	Not always a reliable backup source for power and is costly.	Install wind-power energy	Not always a reliable backup source for power and is costly.		
Action	Evaluation										
No action	Problem persists										
Install solar panels	Not always a reliable backup source for power and is costly.										
Install wind-power energy	Not always a reliable backup source for power and is costly.										



## Action 2025-FrankfordTwp-07. Substantial Damage Response Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Public Works		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials         </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire         </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP)         </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP)         </div>		
<b>CRS Category</b>	<div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI)         </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES)         </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-FrankfordTwp-08. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Planning Board, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.																
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.																
<b>Estimated Cost:</b>	Staff time, Low																
<b>Potential Funding Sources:</b>	Township Budget																
<b>Implementation Timeline:</b>	Within 2 years																
<b>Goals Met:</b>	1, 2, 5																
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.																
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.																
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.																
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.																
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Only share opportunities when notified of grant funding</td><td>May not be enough time to garner interest or write application</td></tr><tr><td>Wait for information from the State on flood-damaged properties</td><td>May be a delay in notice</td></tr></table>	Action	Evaluation	No action	Current problem remains	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	Wait for information from the State on flood-damaged properties	May be a delay in notice								
Action	Evaluation																
No action	Current problem remains																
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application																
Wait for information from the State on flood-damaged properties	May be a delay in notice																





## Action 2025-FrankfordTwp-09. Critical Facilities in the Floodplain

<b>Lead Agency:</b>	Facility Managers																
<b>Supporting Agencies:</b>	Emergency Management, Floodplain Administrator																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has a number of critical facilities in the floodplain including Culvers Lake Dam, Lake Owassa Dam, Main Library, and Sussex County Farm Dam.																
<b>Description of the Solution:</b>	Coordinate with the facility managers at the Culvers Lake Dam, Lake Owassa Dam, Main Library, and Sussex County Farm Dam in the Township to support the mitigation of vulnerable structures via retrofit (e.g., elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Township Budget, Facilities																
<b>Implementation Timeline:</b>	5 years																
<b>Goals Met:</b>	2																
<b>Benefits:</b>	This action will remove or reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders.																
<b>Impact on Socially Vulnerable Populations:</b>	Retrofitting or relocating the identified structures will benefit socially vulnerable populations, as individuals within these populations rely on resources from various government facilities, transportation facilities, and medical and senior care facilities.																
<b>Impact on Future Development:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.																
<b>Impact on Critical Facilities/Lifelines:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.																
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Floodproof existing structures</td><td>May not necessarily reduce risk</td></tr><tr><td>Construct floodwalls to stop flood issues</td><td>Will most likely interrupt natural floodplain function</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Floodproof existing structures	May not necessarily reduce risk	Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function								
Action	Evaluation																
No Action	Current problem remains																
Floodproof existing structures	May not necessarily reduce risk																
Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function																



## Action 2025-FrankfordTwp-10. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management										
<b>Supporting Agencies:</b>	Township Administration, Sussex County										
<b>Hazard(s) of Concern:</b>	<div><div><input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials</div><div><input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire</div></div>										
<b>Description of the Problem:</b>	The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Township. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.										
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Township events, the Township newsletters, social media, the Township website, and having the materials on display for the public at Township libraries and offices.										
<b>Estimated Cost:</b>	Low										
<b>Potential Funding Sources:</b>	Municipal Budget, HMGP										
<b>Implementation Timeline:</b>	Within 3 years										
<b>Goals Met:</b>	1, 3, 7										
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Township. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.										
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township will become educated on hazards risks. The Township will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.										
<b>Impact on Future Development:</b>	Not applicable										
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.										
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.										
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</div>										
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)</div>										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current methods remain the only ones used</td></tr><tr><td>Rely on state or federal resources</td><td>Resources may be generalized and not specific to the risks in the Township</td></tr><tr><td>Use only a few methods for distribution</td><td>Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance</td></tr></table>	Action	Evaluation	No action	Current methods remain the only ones used	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance		
Action	Evaluation										
No action	Current methods remain the only ones used										
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township										
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance										



## Action 2025-FrankfordTwp-11. Certified Floodplain Manager Credentialling

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Engineering, Construction Official, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.																
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Township Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3																
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.																
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.																
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management have the opportunity to influence future development and prevent unsafe building in hazard areas.																
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.																
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related events. This action will educate staff on NFIP regulations to assist with the flood hazard.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>															
	No Action	Current problem remains															
	Hire outside contractors for floodplain administration	Costly															
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role															



## 8. BOROUGH OF FRANKLIN

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Borough of Franklin with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Franklin, describes who participated in the planning process, assesses Franklin's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 8.1 HAZARD MITIGATION PLANNING TEAM

The Borough of Franklin identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Borough departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 8-1 summarizes Borough officials who participated in the development of the annex and in what capacity. Additional documentation of the Borough's planning activities through Planning Partnership meetings is included in Volume I.

Table 8-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Jim Williams / OEM Coordinator Address: 46 Main Street, Franklin, NJ 07416 Phone Number: (973) 600-9081 Email: lauranjenna@gmail.com	Name/Title: Brian VanDenBroek / DPW Supervisor Address: 75 Corkhill Road, Franklin, NJ 07416 Phone Number: (862) 268-7788 Email: bvandenbroek@Franklinborough.org
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Joe Butto / Construction Official - Hardyston Township Address: 149 Wheatsworth Road, Suite A, Hardyston, NJ 07419 Phone Number: (973) 823-7020 Email: jbutto@hardyston.com	
<b>Additional Contributors</b>	
Name/Title: Jim Williams / OEM Coordinator Method of Participation: Assisted in the completion of municipal worksheets. Reviewed the draft annex for final edits and submitted sign-off sheet.	
Name/Title: Brian VanDenBroek / DPW Supervisor Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Joe Butto / Construction Official - Hardyston Township Method of Participation: Assisted in the completion of municipal worksheets. Reviewed the draft annex for final edits and submitted sign-off sheet.	



## 8.2 COMMUNITY PROFILE

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Franklin Borough was incorporated in 1913 and is known as the "Fluorescent Mineral Capital of the World." The Borough has a rich mining history and was widely recognized for its rich ore body containing more than 150 minerals. The Borough is located in eastern Sussex County and bordered to the north by the Borough of Hamburg, to the west by Hardyston Township, to the south by the Borough of Ogdensburg, and to the east by the Township of Hardyston. The Borough is also located within the New Jersey Highlands Region. The Wallkill River, Franklin Pond Creek and Wildcat Branch flow through the Borough. According to the U.S. Census, the 2020 population for Franklin was 4,912, a 2.6-percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 3.5-percent of the population is 5 years of age or younger, 4.6-percent is 65 years of age or older, 6.8-percent is non-English speaking, 3.9-percent is below the poverty threshold, and 5.4-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Borough of Franklin, 40-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 8.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Franklin performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Franklin to identify opportunities for integrating mitigation concepts into ongoing Borough procedures.



### 8.3.1 Planning and Regulatory Capability and Integration

Table 8-2 summarizes the planning and regulatory tools that are available to Franklin.

Table 8-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019; State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)	State & Local	Construction Official
How has or will this be integrated with the HMP and how does this reduce risk? <i>The building code provides guidance on how to design, build, and operate buildings. Modern building codes lead to major reductions in property losses from natural disasters.</i>				
<b>Zoning/Land Use Code</b>	Yes	State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49; Chapter 161, Article 5- Land Development	Local	Zoning Officer
How has or will this be integrated with the HMP and how does this reduce risk? <i>Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan.</i>				
<b>Subdivision Code</b>	Yes	P.L.1975, c.291 (C.40:55D-47): 40:55D-37; Chapter 161 – Land Development	Local	Zoning Officer
How has or will this be integrated with the HMP and how does this reduce risk? <i>The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.</i>				
<b>Site Plan Code</b>	Yes	Municipal Land Use Law, NJ Statute 40:27-6.2	Local	Engineering Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>Dictated by the Municipal Land Use Law which sets forth minimum requirements for plans, etc., timeframes for development review. NJ Statute 40:27-6.2: The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the</i>				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.

<b>Stormwater Management Code</b>	Yes	Title 7 of the NJ Administrative Code, N.J.A.C. 7:8; Chapter 161, Article 9 – Land Development, Stormwater and Flooding Controls.	Local	Borough Engineer
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How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of this article is to establish minimum stormwater management requirements and controls for major development. This article is applicable to the following major developments:*

- Nonresidential major developments,
- Aspects of residential major developments that are not preempted by the Residential Site Improvement Standards at N.J.A.C. 5:21, and
- All major developments undertaken by the Borough of Franklin.

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<ul style="list-style-type: none"> <li>Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.</li> <li>Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.</li> <li>Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.</li> <li>Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.</li> <li>Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?</li> <li>Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?</li> </ul>				

Not all provisions of this law have become effective at the time of the writing of this plan.

<b>Growth Management</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 168-Littering; Chapter 188-Nuclear Free Zone; Chapter 230-Solid Waste	Local	Borough of Franklin
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How has or will this be integrated with the HMP and how does this reduce risk?

*Chapter 168 - Littering: This chapter indicates it is unlawful for any person to throw, drop, discard or otherwise place any litter of any nature upon public or private property other than in a litter receptacle, or having done so, to allow such litter to remain.*

*Chapter 188 - Nuclear Free Zone: This chapter prohibits the development, production, storage, deployment, usage, landfilling, fabrication, destruction and transportation of radioactive materials in and through the Borough of Franklin.*

*Chapter 230 - Solid Waste: This chapter defines the various forms of solid waste and how to properly dispose of each form. It also defines the receptacle requirements, how to prepare solid waste for collection, and the differences between residential and commercial garbage collections.*

<b>Flood Damage Prevention Ordinance</b>	Yes	NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52); National Flood Control Act of 1968 (NFIP), Adopted in 2007 and amended effective 6/20/2016; Chapter 128 – Flood Damage Prevention	Local & State	Construction Official
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How has or will this be integrated with the HMP and how does this reduce risk?

*The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In addition, participation in the NFIP requires a floodplain ordinance. Regulations for the Flood Control Hazards Act were adopted in 2007 and amended effective June 20, 2016.*

*It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to protect human life and health; Minimize expenditure of public money for costly flood-control projects; Minimize the need for rescue and relief efforts*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*associated with flooding and generally undertaken at the expense of the general public; Minimize prolonged business interruptions; Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard; Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas; Ensure that potential buyers are notified that property is in an area of special flood hazard; and Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Emergency Management Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

#### PLANNING DOCUMENTS

<b>General/Comprehensive Plan</b>	Yes	2018 Revised NJ Statute 40:27-2; State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28; 2003 Master Plan with reexamination in 2009	Local	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*The current Franklin Borough Master Plan consists of a series of documents dating from 2003. The Planning Board adopted an all new Franklin Borough Master Plan on March 17th, 2003. This Plan was subsequently amended with the adoption of the Housing Element and Fair Share Plan (August 15, 2005); the Munsonhurst District Amendment (August 20, 2007) and the Quarry Zone Amendment (May 19, 2008). Every six years municipalities are required to review their Master Plans. Commencing in 2009, the Planning Board undertook this review which is reflected in the 2009 Master Plan Reexamination Report and Master Plan Amendments, adopted October 21, 2009. The Report also includes three new amendments:*

- Circulation Plan Element Amendment addresses vehicular and pedestrian circulation throughout the Borough*
- The vision statement reflects cooperative input following many public meetings and is consistent with the State Plan and County Strategic Growth Plan.*
- Main Street Revitalization Plan. That plan, with certain changes, is now incorporated into and made a part of the Franklin Borough Master Plan.*

*On May 17, 2010, the Planning Board amended its Master Plan again with the adoption of an Amended Housing Plan & Fair Share Plan. On March 21, 2016, the Planning Board adopted the 2016 Master Plan Re-Examination report and approving Master Plan Amendments.*

<b>Capital Improvement Plan</b>	Yes	Annual Capital Improvement Plan	Local	Borough Council
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How has or will this be integrated with the HMP and how does this reduce risk?

*Entities will submit desired capital projects to Borough Council with project titles, descriptions, and anticipated costs. The submitted projects may include those with relevance to hazard mitigation, including stormwater management or making facilities more sustainable.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Agriculture Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Borough of Franklin EOP, 2023	Local	Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Operations Plan defines the scope of preparedness and emergency management activities necessary in the Borough. This document assigns responsibility to organizations and individuals for carrying out specific actions that exceed routine responsibility at projected times and places during an emergency; sets lines of authority and organizational relationships and shows how all actions will be coordinated; identifies how people and property are protected; and identifies personnel, equipment, facilities, supplies, and other resources available within the jurisdiction or by agreement with other jurisdictions.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



### 8.3.2 Development and Permitting Capability

Table 8-3 summarizes the capabilities of Franklin to oversee and track development.

Table 8-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	Construction Department is responsible for issuing development permits.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	Yes	The Borough has a buildable land inventory as part of its Housing Element.
Describe the level of buildout in your jurisdiction.	N/A	There are portions of the Borough available for buildout and, according to the 2016 re-evaluation of the Master Plan, industrial and commercial development is encouraged along the Route 23 corridor. Many areas in the Borough have been identified as environmentally sensitive and are ineligible for future development.

### 8.3.3 Administrative and Technical Capability

Table 8-4 summarizes potential staff and personnel resources available to Franklin and their current responsibilities that contribute to hazard mitigation.

Table 8-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	As of January 1, 2017, per ordinance 20-2016, the Borough of Franklin Planning Board and Zoning Board of Adjustment has been combined to a Planning Board. The Planning Board consists of nine members with up to four alternates. The Planning Board shall exercise its powers in accordance with the MLUL regarding the Borough Master; subdivision and site plan review; any official map adopted by the Borough Council; the Zoning Ordinance, including conditional uses; any capital improvements programs; variances and certain building permits in conjunction with subdivision, site plan and conditional use approval pursuant to the Board's ancillary powers. The Planning Board has the same powers, extent, and is subject to the same restrictions, as a zoning board of adjustment.
Zoning Board of Adjustment	No	-





Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	The Environmental Commission was established for the protection, development, and use of natural resources, located within the Borough. The commission consists of seven members. The powers and duties of the Commission include to conduct research into the use and possible use of the open land areas of the Borough; coordinate the activities of unofficial bodies organized for similar purposes; advertise, prepare, print and distribute books, maps, charts, plans and pamphlets which in its judgment it may deem necessary for its purpose, within the limits of funds appropriated to the Commission; keep an index of all open areas, publicly and privately owned, including open marsh lands, swamps and other wetlands, to obtain information on the proper use of such areas and from time to time, to recommend to the Planning Board and Council plans and programs for inclusion in a Borough Master Plan and for the development and use of such areas; and study and make recommendations concerning open space reserves, water resources management, air pollution control, solid waste management, noise control, soil and landscape protection, environmental appearance and protection of flora and fauna.
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	The Franklin Economic Development Committee is a voluntary group of professionals affiliated for the purpose of providing advice to the Economic Development Manager, Borough Council, as well as various Borough Boards, on matters related to economic development within the Borough of Franklin. While the EDC does not make final decisions as to approval of new businesses or expansions to existing facilities, it takes a proactive approach in its advisory role. The Economic Development Manager is available to work with developers and prospective business owners to explain regulations and opportunities within the Franklin community.
Public Works/Highway Department	Yes	The Public Works Department has the responsibility for the care and maintenance of streets, roads, avenues, public buildings and places, water and wastewater, motor vehicles and all other similar items related to the physical plant and infrastructure under the jurisdiction of the Borough of Franklin.
Construction/Building/Code Enforcement Department	Yes	The Construction Department will be serviced by Hardyston Township Construction Office. The Building Department is responsible for enforcement of the NJ Uniform Construction Code, which includes building, plumbing, energy, electrical, elevator and mechanical codes. Building permits and certificates of occupancy are issued through this department.
Emergency Management/Public Safety Department	Yes	The Borough has an Office of Emergency Management.



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Franklin Borough Board of Public Works
Mutual aid agreements	Yes	Surrounding communities
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	The Borough has a human resources manual; however, there are no job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Contractors (annually)
Engineers or professionals trained in building or infrastructure construction practices	Yes	Contractors (annually)
Planners or engineers with an understanding of natural hazards	Yes	Contractors (annually)
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Contractors (annually)
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Contractors (annually)
Emergency manager	Yes	Office of Emergency Management Coordinator
Grant writers	Yes	Borough Staff
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Stormwater Engineer – French & Parrelo, Denis Keenan

### 8.3.4 Fiscal Capability

Table 8-5 summarizes financial resources available to Franklin.

Table 8-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No



Financial Resources	Accessible or Eligible to Use? (Yes/No)
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	Yes
Other federal or state funding programs	No
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 8.3.5 Education and Outreach Capability

Table 8-6 summarizes the education and outreach resources available to Franklin.

Table 8-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Police Department
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	Yes	The Borough posts information about natural hazard events as well as COVID-19.
Social media for hazard mitigation education and outreach	Yes	The Borough is looking to expand
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Office of Emergency Management Committee
Warning systems for hazard events	No	The Borough is seeking to implement a warning system.
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

### 8.3.6 Community Classifications

Table 8-7 summarizes classifications for community programs available to Franklin.



Table 8-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 8.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 8-8 summarizes the adaptive capacity for each identified hazard of concern and the Borough’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 8-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate



## 8.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 8-1 is responsible for maintaining this information.

### 8.4.1 NFIP Statistics

Table 8-9 summarizes the NFIP policy and claim statistics for Franklin.

Table 8-9. Franklin NFIP Summary of Policy and Claim Statistics

# Policies	5
# Claims (Losses)	9
Total Loss Payments	\$42,743.97
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA 2024

### 8.4.2 Flood Vulnerability Summary

Table 8-10 provides a summary of the NFIP program in Franklin.

Table 8-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Borough occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction?	No



NFIP Topic	Comments
If so, state what projects are underway.	
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Construction Official
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, online FEMA, State, and regional resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA indicated that lack of training, staff and funding are barriers to running an effective floodplain management program in the Borough.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Some challenges include lack of training, staff and funding barriers for running an effective NFIP program.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	December 1, 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 128 – Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	June 28, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets the minimum
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	No





NFIP Topic	Comments
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 8.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 8-11 through Table 8-13.

Table 8-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 8-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There has not been any recent major development or infrastructure between 2019 to present in the Borough.					

\* Only location-specific hazard zones or vulnerabilities identified.



Table 8-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There are no known or anticipated major development or infrastructure in the next five years in the Borough.					

## 8.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Franklin's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 8.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Borough are shown in Figure 8-1 through Figure 8-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Franklin has significant exposure. The maps show the location of potential new development, where available.

Figure 8-1. Franklin Flood and Sinkhole Hazard Area Extent and Location Map

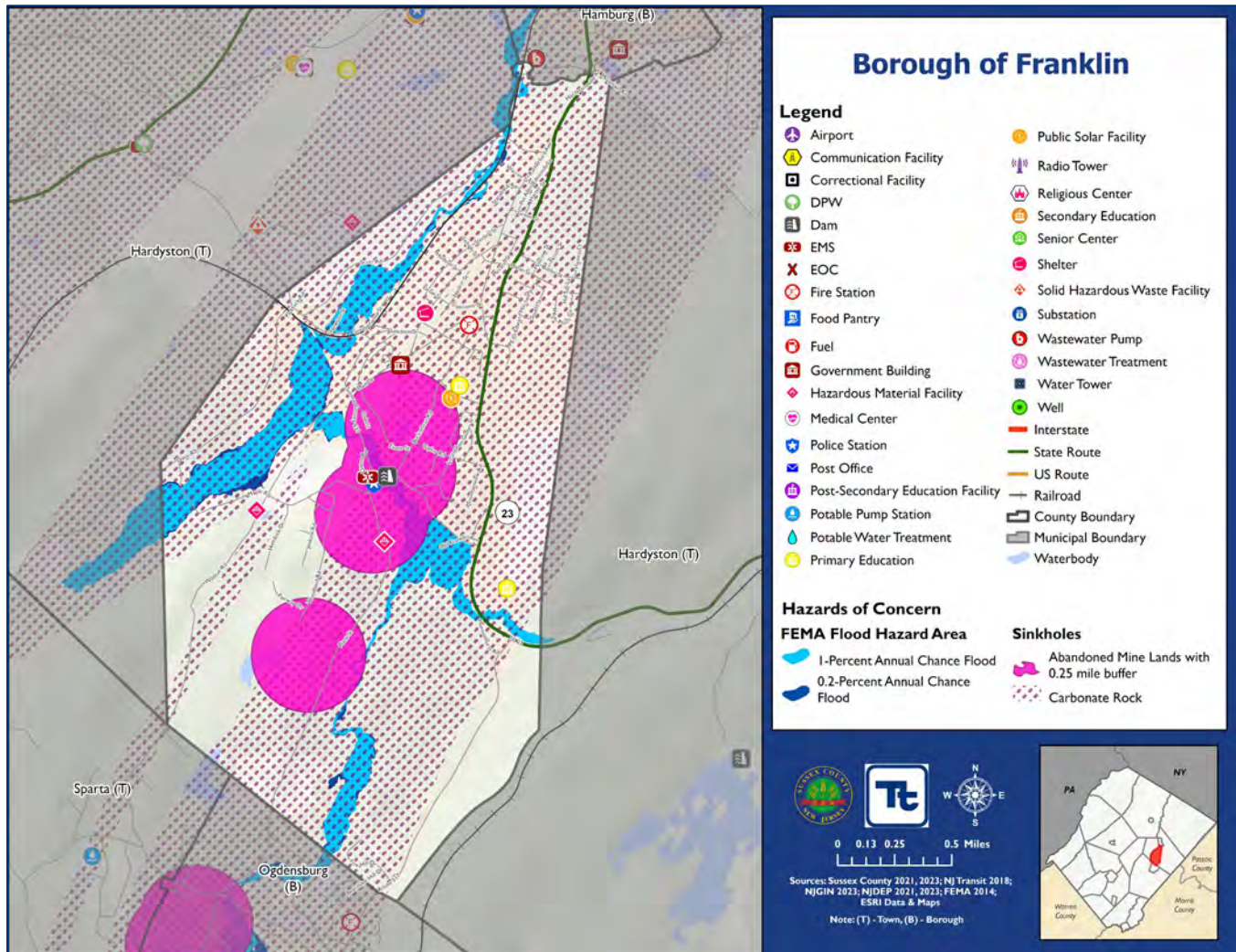




Figure 8-2. Franklin Hazardous Materials and Wildfire Hazard Area Extent and Location Map

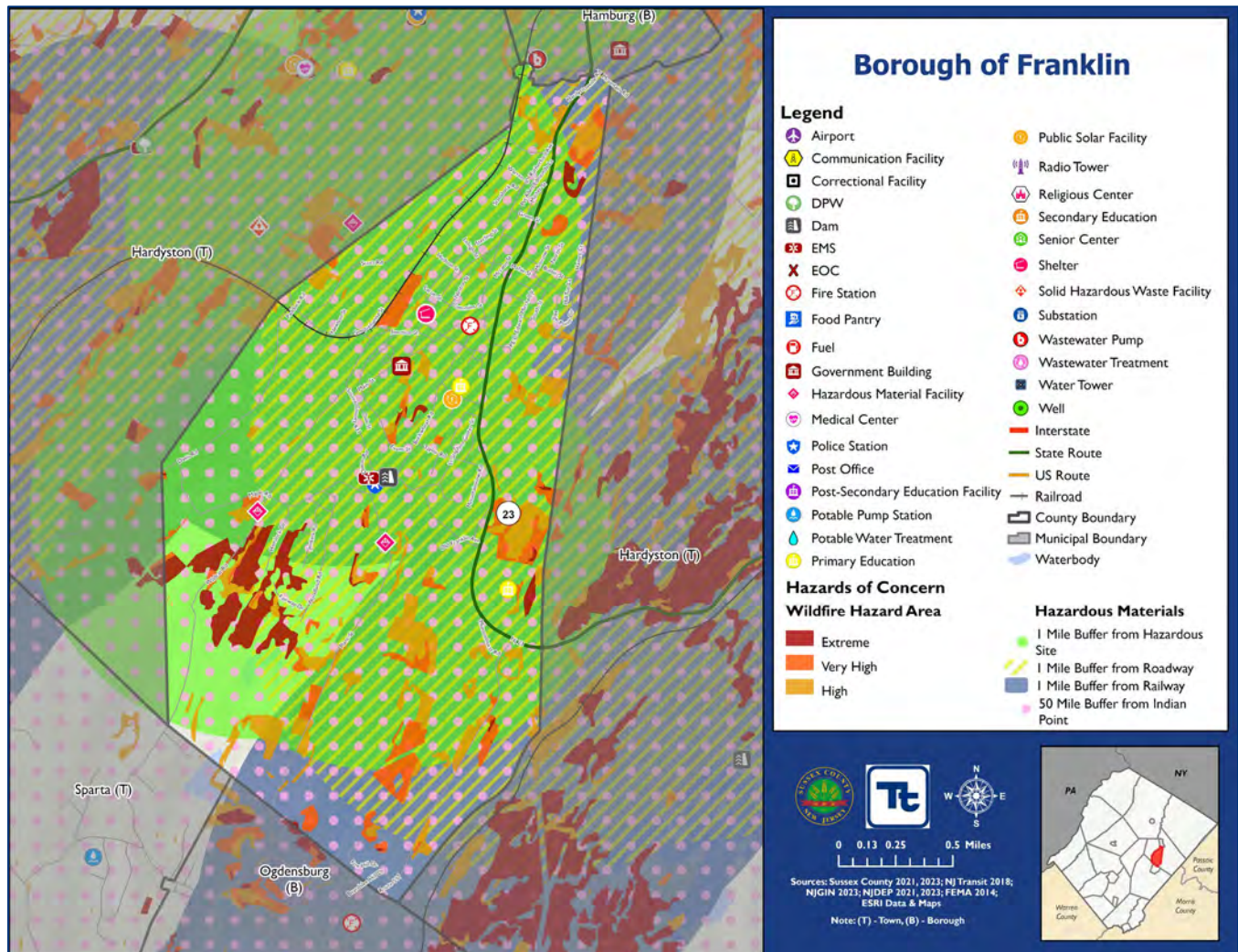
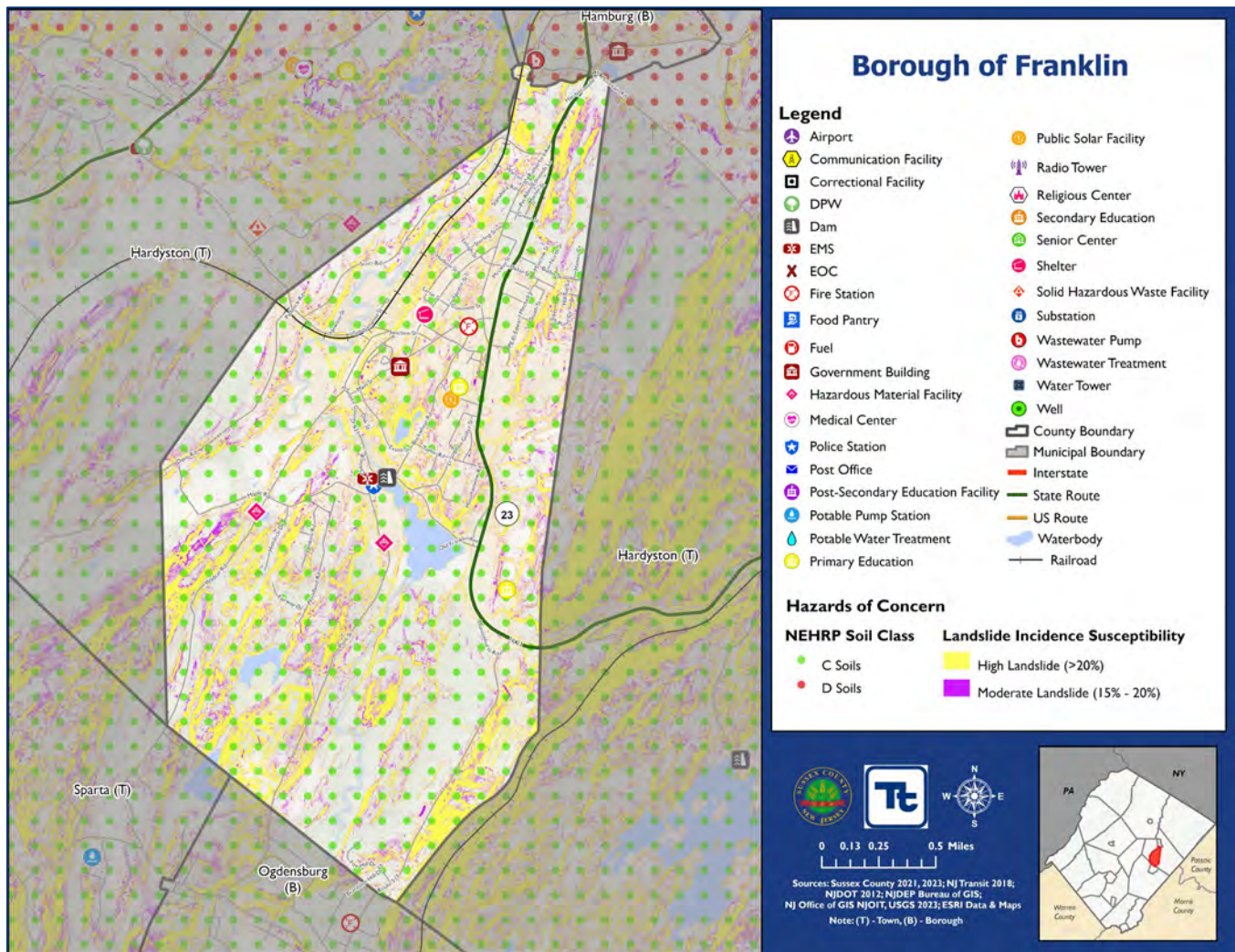


Figure 8-3. Franklin Landslide and NEHRP Soils Hazard Area Extent and Location Map







## 8.6.2 Hazard Event History

The history of natural and non-natural hazard events in Franklin is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 8-14 provides details on loss and damage in Franklin during hazard events since the last hazard mitigation plan update.

Table 8-14. Hazard Event History in Franklin

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Franklin
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Borough implemented masking and social distancing mandates. Non-emergent personnel were permitted to work from home.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Downed trees and power lines. Public Works officials assisted in the clean-up on Borough maintained roadways and properties.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Heavy snowfall and high snow accumulations impacted the Borough. No damages or losses occurred to Borough property. Public Works officials assisted in the clean-up on Borough maintained roadways and properties.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Flash flooding resulted in road closures. Public Works officials assisted in the clean-up on Borough maintained roadways and properties.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 8.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Franklin .





## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Franklin reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Borough indicated the following hazard ranking was accurate.

Table 8-15 shows Franklin's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 8-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Low
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 8-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 8-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Franklin Pond Dam	Dam	Yes	Yes	2025-FranklinB-09	-



Source: NJGIN 2023; Sussex County 2021, 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Franklin:

- Lake Gerard Dam
- Lake Gerard Dam A
- Lake Gerard Dike B
- Lake Gerard Dike C

### 8.6.4 Identified Issues

After review of Franklin's hazard event history, hazard rankings, hazard location, and current capabilities, Franklin identified the following vulnerabilities within the community:

- The Borough lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Borough does not have generators for all municipal facilities. There are no standby generators available at the Rescue Squad, Franklin Elementary School, and Borough Hall. The Police Department's current generator is undersized. These facilities are vulnerable to power outages that would disrupt the operation of municipal functions during a hazard event. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at these critical facilities. The following generator sizes are identified:
  - Police Dept 50 KW Diesel or Propane
  - Borough Hall 100KW Natural Gas
  - DPW Water Utility 30KW Diesel/Propane
  - DPW Road Dept 75KW Diesel or Propane
  - Elementary School 500KW Natural Gas
  - First Aid Squad 22KW Diesel or Propane
- The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods. Communication on hazard and disaster information can be performed by using the internet, social media, and traditional venues. Currently the Borough does not have as much direct control on the website.
- The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.



- The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Borough. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.
- The Borough does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Franklin Pond Dam, a critical infrastructure, is located in the 1- and 0.2-percent flood hazard areas. The Borough also has four high-hazard potential dams, the Lake Gerard Dam, Lake Gerard Dam A, Lake Gerard Dike B, and Lake Gerard Dike C within its jurisdiction. These structures have the potential to impact those living nearby.
- During heavy rains, Franklin Pond crests and causes erosion to streambanks, threatening homes, roadways. The erosion of streambanks can cause flooding conditions in surrounding areas, putting infrastructure, property, and lives at risk.
- Rutherford Avenue and Route 23 have drainage issues during heavy rains. On Rutherford Avenue, the drainage creek floods out; on Route 23, the capacity of the drainage system is undersized causing the road to flood. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- The Walkkill Creek passes through Franklin Borough and poses a flood risk for residents along Newton Avenue. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- Lake Gerard Dam is a Class I High Hazard Dam that is located on Lake Gerard. The dam is owned by the Lake Gerard, LLC. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including South Shore Drive and Beaver Lake Road. The Lake Gerard Dike C, another High Hazard Potential Dam, is located upstream from the Lake Gerard Dam, therefore impacts from a failure at the Lake Gerard Dike C may lead to a potential failure at the Lake Gerard Dam due to the influx of water. Although the Lake Gerard Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Lake Gerard Dam A is a Class I High Hazard Dam that is located on Lake Gerard. The dam is owned by the Lake Gerard, LLC. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including South Shore Drive. The Lake Gerard Dike B, another High Hazard Potential Dam, is located downstream from the Lake Gerard Dam A, therefore impacts from a failure at the Lake Gerard Dam A may lead to a potential failure at the Lake Gerard Dike B due to the influx of water. Although the Lake Gerard Dam A was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Lake Gerard Dike B is a Class I High Hazard Dam that is located on Lake Gerard. The dam is owned by the Lake Gerard, LLC. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including South Shore Drive. The Lake Gerard Dam A, another High Hazard Potential Dam, is located upstream from the Lake Gerard Dike B, therefore impacts from a failure at the Lake Gerard Dam A may lead to a potential failure at the Lake Gerard Dike B due to the influx of water. Although the Lake Gerard Dike B was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.



- Lake Gerard Dike C is a Class I High Hazard Dam that is located on Lake Gerard. The dam is owned by the Lake Gerard, LLC. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including South Shore Drive and Beaver Lake Road. The Lake Gerard Dam, another High Hazard Potential Dam, is located downstream from the Lake Gerard Dike C, therefore impacts from a failure at the Lake Gerard Dike C may lead to a potential failure at the Lake Gerard Dam due to the influx of water. Although the Lake Gerard Dike C was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 8.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 8.7.1 Past Mitigation Action Status

Table 8-17 indicates progress on the Borough's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 8.7.2 Additional Mitigation Efforts

Franklin did not identify any additional mitigation efforts completed since the last HMP.



Table 8-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Franklin-001	Outreach Program	All Hazards	Borough Administrator; Website vendor; Emergency Management; Sussex County Sheriff	<p><b>Problem:</b> The Borough has identified a need to better communicate hazard and disaster information to the public using the internet, social media, and traditional venues. Currently the Borough does not have as much direct control on the website.</p> <p><b>Solution:</b> The Borough proposes to develop and implement an outreach program that includes targeted outreach such as Reverse 9-1-1/textmygov, website and social media integration upgrades, and ADA compliance.</p>	<p>1. No Progress</p> <p>2. The Borough was not able to advance this project due to other prioritized projects.</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>
2021-Franklin-002	Generators for Municipal Facilities	All Hazards	Borough OEM; Public Works	<p><b>Problem:</b> The Borough does not have generators for all municipal facilities. There are no standby generators available at the Rescue Squad, Franklin Elementary School, and Borough Hall. The Police Department's current generator is undersized. These facilities are vulnerable to power outages that would disrupt the operation of municipal functions during a hazard event. The following generator sizes are identified:</p> <ul style="list-style-type: none"> <li>Police Dept 50 KW Diesel or Propane</li> </ul>	<p>1. No Progress</p> <p>2. Due to financial constraints, there was no progress on this project.</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<ul style="list-style-type: none"><li>• Borough Hall 100KW Natural Gas</li><li>• DPW Water Utility 30KW Diesel/Propane</li><li>• DPW Road Dept 75KW Diesel or Propane</li><li>• Elementary School 500KW Natural Gas</li><li>• First Aid Squad 22KW Diesel or Propane</li></ul> <p><b>Solution:</b> The Borough proposes to purchase and install generators at municipal facilities, including Rescue Squad, Elementary School, Borough Hall, and Police Department.</p>		
2021-Franklin-003	Franklin Pond Flood Study	Flood; Hurricanes and Tropical Storms; Nor'easters Severe Storms	Engineer	<p><b>Problem:</b> During heavy rains, Franklin Pond crests over the beach and causes erosion. It has filled in with sand during storm events. FEMA has reimbursed rather than provided funding for mitigation projects, which poses a financial hardship.</p> <p><b>Solution:</b> The Borough will conduct a flood study to determine what can be done to reduce flooding in Franklin Pond. Possible options include dredging of the pond, diverting runoff away from the pond, etc. Once cost-effective actions are</p>	1. No Progress 2. Due to financial constraints, there was no progress on this project.	1. Include in update 2. Not applicable 3. Not applicable





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				identified, the Borough will carry out the selected actions.		
2021-Franklin-004	Rutherford Avenue	Flood; Hurricanes and Tropical Storms; Nor'easters Severe Storms	Engineer	<b>Problem:</b> The drainage creek on Rutherford Avenue floods out because it cannot accept water fast enough. FEMA has reimbursed rather than provided funding for mitigation projects, which poses a financial hardship.  <b>Solution:</b> The Borough Engineer will design a larger drainage creek with a greater varying capacity. The Borough will then make the necessary upgrades.	1. No Progress 2. Due to financial constraints, there was no progress on this project.	1. Include in update 2. Include drainage issues on Route 23. 3. Not applicable
2021-Franklin-005	Flood Damage Prevention Ordinance Update	Flood	Administration	<b>Problem:</b> The Borough's Flood Damage Prevention Ordinance lacks language to include the state mandated freeboard requirement.  <b>Solution:</b> The Borough will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement.	1. No Progress 2. The Borough was not able to advance this project due to other prioritized projects.	1. Include in update 2. Include Code Coordinated Ordinance language. 3. Not applicable
2021-Franklin-006	Disaster Debris Management Plan	All Hazards	OEM, Administration	<b>Problem:</b> The Borough lacks a Disaster Debris Management Plan.  <b>Solution:</b> The Borough will develop and adopt a Disaster Debris Management Plan. The Plan will include any necessary mutual aid discussions to supplement the Borough's capabilities.	1. No Progress 2. The Borough was not able to advance this project due to other prioritized projects.	1. Include in update 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Franklin-007	Wallkill Creek Flood Study	Flood; Hurricanes and Tropical Storms; Nor'easters Severe Storms	Public Works	<b>Problem:</b> The Wallkill Creek passes through Franklin Borough and poses a flood risk for residents throughout the community.  <b>Solution:</b> The Borough will conduct a study on the flooding of the Wallkill River and its impacts on the homes along Newton Avenue.	1. No Progress 2. Due to financial constraints, there was no progress on this project.	1. Include in update 2. Not applicable 3. Not applicable



### 8.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Franklin participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Franklin would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Borough priorities.

Table 8-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 8-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 8-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X		X		X	X
Disease Outbreak		X		X			X			X
Drought		X		X			X			X
Earthquake	X	X		X	X		X			X
Flood	X	X	X	X	X	X	X	X	X	X
Geological Hazards	X	X		X	X		X			X
Hazardous Materials	X	X		X	X		X			X
Hurricane	X	X	X	X	X	X	X	X	X	X
Infestation				X			X			
Nor'easter	X	X	X	X	X	X	X	X	X	X
Severe Weather	X	X	X	X	X	X	X	X	X	X
Severe Winter Weather	X	X		X	X		X			X
Wildfire	X	X		X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 8-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-FranklinB-01	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-FranklinB-02	Emergency Generators at Critical Facilities	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-FranklinB-03	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-FranklinB-04	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-FranklinB-05	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-FranklinB-06	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-FranklinB-07	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-FranklinB-08	Certified Floodplain Manager Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-FranklinB-09	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-FranklinB-10	Streambank Stabilization	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-FranklinB-11	Drainage Capacity Improvements	1	1	1	1	1	0	1	1	1	1	1	1	0	0	11	High
2025-FranklinB-12	Flooded Roadway Study	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-FranklinB-13	Lake Gerard Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High



Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-FranklinB-14	Lake Gerard Dam A Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-FranklinB-15	Lake Gerard Dike B Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-FranklinB-16	Lake Gerard Dike C Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

*Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).*





## Action 2025-FranklinB-01. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Borough Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
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<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Borough currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The Borough will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available								
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-FranklinB-02. Emergency Generators at Critical Facilities

<b>Lead Agency:</b>	Engineering	
<b>Supporting Agencies:</b>	Police Department, Public Works, Franklin Elementary School Facilities Manager, Emergency Management, Borough Administration	
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire
<b>Description of the Problem:</b>	<p>The Borough does not have generators for all municipal facilities. There are no standby generators available at the Rescue Squad, Franklin Elementary School, Public Works facilities, and Borough Hall. The Police Department's current generator is undersized. These facilities are vulnerable to power outages that would disrupt the operation of municipal functions during a hazard event. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at these critical facilities. The following generator sizes are identified:</p> <ul style="list-style-type: none"> <li>• Police Dept 50 KW Diesel or Propane</li> <li>• Borough Hall 100KW Natural Gas</li> <li>• DPW Water Utility 30KW Diesel/Propane</li> <li>• DPW Road Dept 75KW Diesel or Propane</li> <li>• Franklin Elementary School 500KW Natural Gas</li> <li>• First Aid Squad 22KW Diesel or Propane</li> </ul>	
<b>Description of the Solution:</b>	<p>The Borough will purchase the generators and all necessary components and accessories to be installed at Rescue Squad (4 Corkhill Road), Franklin Elementary School (50 Washington Avenue), Public Works Facilities (75 Corkhill Road), Borough Hall (46 Main Street), and the Police Department (15 Corkhill Road). The Public Works department will maintain the generators located at Borough Hall, Public Works Water Utility, and Roads; the Police Department will maintain the generator to be located at its facility; the First Aid Squad will maintain the generator at its facility; and the Franklin Elementary School Facility Manager will be responsible for the maintenance of its generator.</p>	
<b>Estimated Cost:</b>	Medium	
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget	
<b>Implementation Timeline:</b>	Within 5 years	
<b>Goals Met:</b>	1, 2, 5, 6, 7	
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.	
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.	
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.	
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.	
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.	
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.	
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)



Priority	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action	Evaluation	
	No Action	Current problem remains	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	



## Action 2025-FranklinB-03. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods. Communication on hazard and disaster information can be performed by using the internet, social media, and traditional venues. Currently the Borough does not have as much direct control on the website.		
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Borough by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Borough.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Borough.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-FranklinB-04. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator										
<b>Supporting Agencies:</b>	Planning Board, Construction Department, Borough Administration										
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire										
<b>Description of the Problem:</b>	The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.										
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.										
<b>Estimated Cost:</b>	Staff time, Low										
<b>Potential Funding Sources:</b>	Borough Budget										
<b>Implementation Timeline:</b>	Within 2 years										
<b>Goals Met:</b>	1, 2, 5										
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.										
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.										
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.										
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action will create a new Borough capability, while enhancing its current NFIP capabilities.										
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.										
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)										
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)										
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Action	Evaluation										
No action	Current problem remains										
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application										
Wait for information from the State on flood-damaged properties	May be a delay in notice										



## Action 2025-FranklinB-05. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Construction Department, Borough Administration, NFIP State Coordinator, FEMA Regional Office																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	<p>The Borough's current flood damage prevention ordinance currently does not have a freeboard requirement and does not meet New Jersey's minimum requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Borough's ordinance requires update.</p>																
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the Borough will update and adopt the Code Coordinated Ordinance.</p>																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Borough budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5,7																
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>																
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>																
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>																
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>																
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>																
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem exists</td></tr></table>	Action	Evaluation	No Action	Current problem exists												
Action	Evaluation																
No Action	Current problem exists																





	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage



## Action 2025-FranklinB-06. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-FranklinB-07. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management										
<b>Supporting Agencies:</b>	Borough Administration, Sussex County										
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire									
<b>Description of the Problem:</b>	The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Borough. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.										
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Borough events, the Borough newsletters, social media, the Borough website, and having the materials on display for the public at Borough libraries and offices.										
<b>Estimated Cost:</b>	Low										
<b>Potential Funding Sources:</b>	Borough Budget, HMGP										
<b>Implementation Timeline:</b>	Within 3 years										
<b>Goals Met:</b>	1, 3, 7										
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Borough. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.										
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Borough will become educated on hazards risks. The Borough will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.										
<b>Impact on Future Development:</b>	Not applicable										
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program.										
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.										
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)									
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Action	Evaluation										
No action	Current methods remain the only ones used										
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough										
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance										



## Action 2025-FranklinB-08. Certified Floodplain Manager Training

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Construction Department, Borough Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Borough does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.																
<b>Description of the Solution:</b>	Provide training and/or certification for Borough staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Borough Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5																
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Borough and assure the Borough's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.																
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.																
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.																
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.																
<b>Impact on Capabilities:</b>	This action will enhance the Borough's current NFIP capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Hire outside contractors for floodplain administration</td><td>Costly</td></tr><tr><td>Establish shared service agreements for floodplain administration from neighboring municipalities</td><td>Neighboring municipalities are unlikely to have the staff capacity to take on this role</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Hire outside contractors for floodplain administration	Costly	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role								
Action	Evaluation																
No Action	Current problem remains																
Hire outside contractors for floodplain administration	Costly																
Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role																



## Action 2025-FranklinB-09. Dam Owner Partnership

<b>Lead Agency:</b>	Emergency Management										
<b>Supporting Agencies:</b>	Borough Administration, Floodplain Administrator, Dam Owners, NJDEP										
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire										
<b>Description of the Problem:</b>	Franklin Pond Dam, a critical infrastructure, is located in the 1- and 0.2-percent flood hazard areas. The Borough also has four high-hazard potential dams, the Lake Gerard Dam, Lake Gerard Dam A, Lake Gerard Dike B, and Lake Gerard Dike C within its jurisdiction. These structures have the potential to impact those living nearby. Understanding and acknowledging those vulnerable to the hazard, identifying primary and secondary contacts for the dam, and properly planning and storing any emergency action plans or procedures is pertinent to the safety and resilience of the Borough.										
<b>Description of the Solution:</b>	Work with the owners of the dams to ensure inspections and safety procedures are up to date. Maintain a copy of the dam's EAP at the Borough's OEM, in a secure location. Identify mitigation actions to ensure the integrity of the dam and that it is protected up to the 0.2-percent flood hazard area. Determine possibility of digitizing dam inundation data.										
<b>Estimated Cost:</b>	Low										
<b>Potential Funding Sources:</b>	Municipal Budget										
<b>Implementation Timeline:</b>	Within 5 years										
<b>Goals Met:</b>	1, 2, 7										
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.										
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.										
<b>Impact on Future Development:</b>	Not applicable										
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.										
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.										
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.										
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
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Action	Evaluation										
No Action	Borough will be unaware of any safety concerns for the dam or its condition										
Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State										
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory										





## Action 2025-FranklinB-10. Streambank Stabilization

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	-																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	During heavy rains, Franklin Pond crests and causes erosion to streambanks, threatening homes, roadways. The erosion of streambanks can cause flooding conditions in surrounding areas, putting infrastructure, property, and lives at risk.																
<b>Description of the Solution:</b>	The Borough will conduct a flood study to determine what can be done to reduce flooding in Franklin Pond. Possible options include dredging of the pond, diverting runoff away from the pond, etc. Once cost-effective actions are identified, the Borough will carry out the selected actions.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Municipal Budget																
<b>Implementation Timeline:</b>	3 years																
<b>Goals Met:</b>	2																
<b>Benefits:</b>	This action will prevent erosion along Franklin Pond, protecting property and infrastructure from further impact.																
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding from Franklin Pond. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.																
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding from Franklin Pond, permitting first responders to traverse the roadways safely.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These periods of intense rain may lead to more instances of flooding and increased erosion.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input checked="" type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input checked="" type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input checked="" type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input checked="" type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Remove properties impacted by stream overflow</td><td>Costly</td></tr><tr><td>Construct floodwall to prevent flooding</td><td>Cost prohibitive and could ruin natural floodplain function</td></tr></table>			Action	Evaluation	No action	Current problem continues	Remove properties impacted by stream overflow	Costly	Construct floodwall to prevent flooding	Cost prohibitive and could ruin natural floodplain function						
Action	Evaluation																
No action	Current problem continues																
Remove properties impacted by stream overflow	Costly																
Construct floodwall to prevent flooding	Cost prohibitive and could ruin natural floodplain function																



## Action 2025-FranklinB-11. Drainage Capacity Improvements

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Rutherford Avenue and Route 23 have drainage issues during heavy rains. On Rutherford Avenue, the drainage creek floods out; on Route 23, the capacity of the drainage system is undersized causing the road to flood. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	The Borough Engineer will complete an engineering survey of drainage systems on Rutherford Avenue and Route 23 that are below capacity and contribute to flooding to determine strategies which would provide relief from floods. The Borough Public Works will complete the necessary work.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, Borough Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	1, 2		
<b>Benefits:</b>	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.		
<b>Impact on Socially Vulnerable Populations:</b>	Areas that were previously vulnerable to frequency or severe flooding events will be less likely to be impacted by flooding events.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	Transportation routes are more likely to remain open, which allows evacuation routes to remain intact. Furthermore, Access to health and medical facilities will be maintained, both for healthcare workers and the population who requires treatment for injuries and illness.		
<b>Impact on Capabilities:</b>	Identifying the culverts that are at greatest risk of damage or failure can allow for resource staging to take place where the need is greatest ahead of a flood event.		
<b>Climate Change Considerations:</b>	Climate change is likely to result in more frequent and severe rainfall events. This action upsizes culvert sizes to meet changing stormwater needs as the result of climate change.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Remove roadway	Roadway cannot be removed	
	Raingardens	Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.	



## Action 2025-FranklinB-12. Flooded Roadway Study

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Borough Administration, Emergency Management, Dam Owner																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Wallkill Creek passes through Franklin Borough and poses a flood risk for residents along Newton Avenue. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.																
<b>Description of the Solution:</b>	Work with partnering agencies to identify feasible mitigation measures to provide relief from flooding impacts on Newton Avenue. Cost effective measures will be implemented.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP																
<b>Implementation Timeline:</b>	5 years																
<b>Goals Met:</b>	2																
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Borough along Newton Avenue.																
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding along Newton Avenue. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.																
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding along Newton Avenue, permitting first responders to traverse the roadways safely.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rain events make traversing roadways difficult, and often times unsafe.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Raise banks of stream to increase storage capacity</td><td>Cost prohibitive</td></tr><tr><td>Construct floodwall along stream</td><td>Cost prohibitive</td></tr></table>			Action	Evaluation	No action	Current problem remains	Raise banks of stream to increase storage capacity	Cost prohibitive	Construct floodwall along stream	Cost prohibitive						
Action	Evaluation																
No action	Current problem remains																
Raise banks of stream to increase storage capacity	Cost prohibitive																
Construct floodwall along stream	Cost prohibitive																



## Action 2025-FranklinB-13. Lake Gerard Dam Rehab

<b>Lead Agency:</b>	Lake Gerard, LLC																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Lake Gerard Dam is a Class I High Hazard Dam that is located on Lake Gerard. The dam is owned by the Lake Gerard, LLC. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including South Shore Drive and Beaver Lake Road. The Lake Gerard Dike C, another High Hazard Potential Dam, is located upstream from the Lake Gerard Dam, therefore impacts from a failure at the Lake Gerard Dike C may lead to a potential failure at the Lake Gerard Dam due to the influx of water. Although the Lake Gerard Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Lake Gerard, LLC to complete an engineering study of Lake Gerard Dam. The Borough will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Lake Gerard, LLC will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr></table>	Action	Evaluation	No Action	Current problem continues												
Action	Evaluation																
No Action	Current problem continues																



	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Gerard as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## Action 2025-FranklinB-14. Lake Gerard Dam A Rehab

<b>Lead Agency:</b>	Lake Gerard, LLC																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Lake Gerard Dam A is a Class I High Hazard Dam that is located on Lake Gerard. The dam is owned by the Lake Gerard, LLC. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including South Shore Drive. The Lake Gerard Dike B, another High Hazard Potential Dam, is located downstream from the Lake Gerard Dam A, therefore impacts from a failure at the Lake Gerard Dam A may lead to a potential failure at the Lake Gerard Dike B due to the influx of water. Although the Lake Gerard Dam A was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Lake Gerard, LLC to complete an engineering study of Lake Gerard Dam A. The Borough will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Lake Gerard, LLC will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr></table>	Action	Evaluation	No Action	Current problem continues												
Action	Evaluation																
No Action	Current problem continues																





	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Gerard as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## Action 2025-FranklinB-15. Lake Gerard Dike B Rehab

<b>Lead Agency:</b>	Lake Gerard, LLC																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Lake Gerard Dike B is a Class I High Hazard Dam that is located on Lake Gerard. The dam is owned by the Lake Gerard, LLC. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including South Shore Drive. The Lake Gerard Dam A, another High Hazard Potential Dam, is located upstream from the Lake Gerard Dike B, therefore impacts from a failure at the Lake Gerard Dam A may lead to a potential failure at the Lake Gerard Dike B due to the influx of water. Although the Lake Gerard Dike B was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Lake Gerard, LLC to complete an engineering study of Lake Gerard Dike B. The Borough will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Lake Gerard, LLC will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr></table>	Action	Evaluation	No Action	Current problem continues												
Action	Evaluation																
No Action	Current problem continues																



	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Gerard as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## Action 2025-FranklinB-16. Lake Gerard Dike C Rehab

<b>Lead Agency:</b>	Lake Gerard, LLC		
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Lake Gerard Dike C is a Class I High Hazard Dam that is located on Lake Gerard. The dam is owned by the Lake Gerard, LLC. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including South Shore Drive and Beaver Lake Road. The Lake Gerard Dam, another High Hazard Potential Dam, is located downstream from the Lake Gerard Dike C, therefore impacts from a failure at the Lake Gerard Dike C may lead to a potential failure at the Lake Gerard Dam due to the influx of water. Although the Lake Gerard Dike C was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.		
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Lake Gerard, LLC to complete an engineering study of Lake Gerard Dike C. The Borough will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Lake Gerard, LLC will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 8		
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.		
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.		
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem continues	



	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Gerard as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## 9. TOWNSHIP OF FREDON

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Fredon with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Fredon, describes who participated in the planning process, assesses Fredon's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 9.1 HAZARD MITIGATION PLANNING TEAM

The Township of Fredon identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 9-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 9-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Keith Fiesta / OEM Coordinator Address: 443 Rt. 94, Newton, NJ 07860 Phone Number: (516) 456-1374 Email: Firecop1534@gmail.com	Name/Title: Carl Lazzaro / Deputy OEM Coordinator Address: 443 Rt. 94, Newton, NJ 07860 Phone Number: (973) 464-5030 Email: Cfl1@ptd.net
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Harold Pellow / Engineer Address: 17 Plains Rd, Augusta, NJ 07822 Phone Number: (973) 948-6463 Email: hpellow@hpellow.com	
<b>Additional Contributors</b>	
Name/Title: Keith Fiesta / OEM Coordinator Method of Participation: Provided key information to the development of the jurisdictional annex. Reviewed and approved final draft of annex signed signature page	
Name/Title: Carl Lazzaro / Deputy OEM Coordinator Method of Participation: Provided key information to the development of the jurisdictional annex. Reviewed and approved final draft of annex signed signature page	
Name/Title: Harold Pellow / Engineer Method of Participation: Provided key information to the development of the jurisdictional annex. Reviewed and approved final draft of annex signed signature page	
Name/Title: Brad Moxen / Enforcement Official Method of Participation: Reviewed and approved final draft of annex signed signature page	
Name/Title: Glen Deitz / Mayor Method of Participation: Reviewed and approved final draft of annex signed signature page	





Primary Point of Contact	Alternate Point of Contact
Name/Title: Matthew Lambert / Public Works Supervisor Method of Participation: Reviewed and approved final draft of annex signed signature page	
Name/Title: Suzanne Boland / Municipal Clerk Method of Participation: Reviewed and approved final draft of annex signed signature page	
Name/Title: Jessica Caldwell / Planner Method of Participation: Reviewed and approved final draft of annex signed signature page	

## 9.2 COMMUNITY PROFILE

The Township of Fredon was incorporated in 1904. The Township is located in southwestern Sussex County and has a total land area of 17.65 square miles. It is bordered to the north by Hampton Township, to the south by Green Township, to the east by Andover Township and Newton, and to the west by Stillwater Township and Warren County. The Pequest River, Paulins Kill, and Bear Brook all flow through the Township. In addition, numerous ponds and lakes are located throughout the Township. According to the U.S. Census, the 2020 population for Fredon was 3,235, a 5.8-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 2-percent of the population is 5 years of age or younger, 2.5-percent is 65 years of age or older, 1.5-percent is non-English speaking, 2.4-percent is below the poverty threshold, and 1.9-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Township of Fredon, 18-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 9.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Fredon performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events



For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Fredon to identify opportunities for integrating mitigation concepts into ongoing Township procedures.

### 9.3.1 Planning and Regulatory Capability and Integration

Table 9-2 summarizes the planning and regulatory tools that are available to Fredon.

Table 9-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019; Chapter 200-State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)	State	NJDCA
How has or will this be integrated with the HMP and how does this reduce risk? The Township of Fredon, pursuant to N.J.S.A. 52:27D-124 and N.J.A.C. 5:23-4.3, hereby relinquishes its jurisdiction of the administration and enforcement of the Uniform Construction Code and transfers jurisdiction for the administration and enforcement of the Uniform Construction Code to the Department of Community Affairs of the State of New Jersey.				
<b>Zoning/Land Use Code</b>	Yes	NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, efficient 8/1/1976, 40-55D-62: 49. Powe; Chapter 550-Zoning	Federal & Local	Zoning Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan.</i>				
<b>Subdivision Code</b>	Yes	P.L.1975, c.291 (C.40:55D-47): 40:55D-37; Fredon Township Ordinance 2021-03, Amending Chapter 457 Stormwater Management, February 2021; Chapter 550-Zoning; Chapter 470 Subdivision of Land	Federal & Local	Planning and Zoning Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>The filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Site Plan Code</b>	Yes	Municipal Land Use Law, NJ Statute 40:27-6.2; Chapter 424 – Site Plan Review	Local	Planning and Zoning Department

How has or will this be integrated with the HMP and how does this reduce risk?

The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.

<b>Stormwater Management Code</b>	Yes	Title 7 of the NJ Administrative Code, N.J.A.C. 7:8; Chapter 457-Stormwater Control; Fredon Township Ordinance 2021-03, amending Chapter 457 Stormwater Management, February 2021	Federal & Local	Planning and Zoning Department
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How has or will this be integrated with the HMP and how does this reduce risk?

The purpose of this chapter is to establish minimum stormwater management requirements and controls for major development including nonresidential major developments, aspects of residential major developments that are not preempted by the Residential Site Improvement Standards at N.J.A.C. 5:21 and is applicable to all major developments undertaken by the Township of Fredon. Development approvals issued pursuant to this chapter are to be considered an integral part of development approvals and do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act, or ordinance. In their interpretation and application, the provisions of this chapter shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare.

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.

The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.

The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.

For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?

Not all provisions of this law have become effective at the time of the writing of this plan.

<b>Growth Management</b>	Yes	Zoning Ordinance; Plan Endorsement Process via the State Development & Redevelopment Plan	Local	Planning and Zoning Department
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How has or will this be integrated with the HMP and how does this reduce risk?

Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy.

<b>Environmental Protection Ordinance(s)</b>	Yes	Zoning Ordinance (Chapter 550)	State	Zoning Officer
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How has or will this be integrated with the HMP and how does this reduce risk?

Land Use Board applications require NJDEP Environmental Impact Statement if required. The Zoning Ordinance (Chapter 550) includes the following purposes related to environmental protection: To preserve agricultural lands and open space, and to ensure that any future development of farmland that does occur includes a component of preservation and is designed to minimize any visual and environmental impacts that may occur; To preserve large tracts of land for open space and farmland by encouraging the development of new residential subdivisions in a cluster design; To protect areas constrained by steep slopes, wetlands, Category 1 streams, flood-prone areas, forested areas and areas with threatened or endangered habitat.



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Flood Damage Prevention Ordinance</b>	Yes	NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52; National Flood Control Act of 1968 (NFIP); Chapter 270-Flood Control, last amended February 2021	Local	Engineer

How has or will this be integrated with the HMP and how does this reduce risk?

*The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In addition, participation in the NFIP requires a floodplain ordinance. Regulations for the Flood Control Hazards Act were adopted in 2007 and amended effective June 20, 2016.*

*It is the purpose of this chapter, to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to Protect human life and health; Minimize expenditure of public money for costly flood control projects; Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; Minimize prolonged business interruptions; Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard; Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas; Ensure that potential buyers are notified that property is in an area of special flood hazard; and Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Emergency Management Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other: Soil Erosion and Sediment Control</b>	Yes	Chapter 441-Soil Erosion and Sediment Control	Local	Planning and Zoning Department
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How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of this chapter is to control soil erosion and sediment damages and related environmental damage by requiring adequate provisions for surface water retention and drainage and for the protection of exposed soil surfaces in order to promote the public health, safety, convenience and general welfare of the community.*

<b>Other: Genetically Engineered Microorganisms</b>	Yes	Chapter 290, Genetically Engineered Microorganisms	Local	Township Committee
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Township Committee shall adopt, by resolution, such rules and regulations which shall, in its discretion, be deemed reasonable and necessary governing the application for permission to release any genetically engineered microorganism into the outdoor environment of the Township, including, but not limited to, regulations requiring completion of appropriate applications; submission of a plan for environmental protection, containment and disposal; submission of a plan insuring the health, safety and welfare of the public; submission of approvals by appropriate state and federal governmental agencies; payment of fees and costs to the Township; survey and location of the release site and affected areas; and posting of appropriate sureties or other insurances to guarantee against liability for damage or loss.*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Other: Hazardous Materials</b>	Yes	Chapter 300-Hazardous Materials	Local	Township Committee

How has or will this be integrated with the HMP and how does this reduce risk?  
*Deals with the emergency response and cost recovery of hazardous materials.*

#### PLANNING DOCUMENTS

<b>General/Comprehensive Plan</b>	Yes	Township of Fredon Master Plan, 2007	Local	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*The county planning board shall make and adopt a master plan for the physical development of the county. The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county. The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan and to advise the board of chosen commissioners with respect to the formulation of development programs and budgets for capital expenditures. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28 provides the required components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity.*

<b>Capital Improvement Plan</b>	Yes	CIP adopted in 2015.	Local	Township Committee
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How has or will this be integrated with the HMP and how does this reduce risk?

*Township entities will submit desired capital projects to the Township Committee with project titles, descriptions, and anticipated costs. The submitted projects may include those with relevance to hazard mitigation, including stormwater management or making facilities more sustainable.*

<b>Disaster Debris Management Plan</b>	Yes	Fredon Township Office of Emergency Management Emergency Operations Plan October 2018; Fredon Township Ordinance 2021-03: Amending Chapter 457-16 Stormwater Management February 2021.	Local	Office of Emergency Management; Department of Public Works
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Disaster Debris Management Plan establishes procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner.*

<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Stormwater Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Open Space Plan</b>	Yes	Township of Fredon Master Plan, Open Space and Recreation Element, 2007	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>This element of the Master Plan seeks to protect areas constrained by steep slopes, wetlands, category-one streams, flood prone areas, forested areas, and areas with threatened or endangered habitat by enforcing the Township's environmental regulations and establishing new regulations to address unregulated elements; minimize the visual impact of future development on the rural landscape and scenic corridors. And within this context, ensure that new development is located in the appropriate areas and that it provides the appropriate buffers necessary to protect the environment and minimize the visual impact; and encourage renewable energy in appropriate locations would be appropriate.</i>				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	Yes	Township of Fredon Master Plan, Circulation Element, 2007	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The goal of the study is to develop strategies to address transportation needs in the coming years. The plan identifies challenges and issues that have both resulted from the study process and represent challenges that will be faced during the implementation period for the plan; presents the study steps and the key findings that have resulted from the overall process; and presents the recommended steps that should be taken by the Township.</i>				
<b>Agriculture Plan</b>	Yes	Township of Fredon Master Plan, Agricultural Preservation Element, 2007	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Township of Fredon realizes the importance of preserving its farmers as well its farmland. In cooperation with local schools, organizations, and research institutions, the Township has undertaken a number of initiatives that help to promote the economic well-being of local farmers.</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other: Stream Corridor Management Plan</b>	Yes	Township of Fredon Master Plan, 2007	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>In compliance with the Master Plan.</i>				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Fredon Township Office of Emergency Management Emergency Operations Plan October 2018	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>Each county and municipality in the State shall prepare a written Emergency Operations Plan with all appropriate annexes necessary to implement the plan. Each Emergency Operations Plan shall be adopted no later than one year after the State Emergency Planning Guidelines have been adopted by the State Office of Emergency Management and shall be evaluated at such subsequent scheduled review of the State Emergency Operations Plan. L. 1989, c.222, s.19.</i>				
<b>Continuity of Operations Plan</b>	Yes	Fredon Township Office of Emergency Management Emergency Operations Plan October 2018	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Continuity of Operations Plan (COOP) is a policy and guidance document that ensures that essential functions for an agency or organization are continued in the event of an emergency. The COOP addresses emergencies from an all-hazards approach, including natural, manmade, or technological disasters. The Township's COOP is located within its EOP.</i>				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 9.3.2 Development and Permitting Capability

Table 9-3 summarizes the capabilities of Fredon to oversee and track development.

Table 9-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	No	The Building / Construction Department for Fredon is run by the NJ State Department of Community Affairs (DCA).
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	-
Describe the level of buildout in your jurisdiction.	N/A	There is space available for build-out within the Township

### 9.3.3 Administrative and Technical Capability

Table 9-4 summarizes potential staff and personnel resources available to Fredon and their current responsibilities that contribute to hazard mitigation.

Table 9-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Land Use Board, comprised of nine regular and four alternate members, is responsible for developing, preserving, and improving the Land Use Master Plan of Fredon Township. The Board reviews and acts on applications for subdivisions and site plans. It also interprets the zoning ordinance and zoning map in order to determine if a variance, from the bulk and dimensional requirements of the ordinance or from a specifically permitted use in the zone, should be granted. The Board,



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		along with its' professional consultants, continues to gather, organize and distribute data respecting land use and the Township Master Plan and reviews, revises, recommends and interprets land use ordinances to the Township Committee for adoption consideration.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	Yes	Fredon Township Committee
Environmental Board/Commission	Yes	<p>Environmental Commission. The Fredon Township Environmental Commission is the focal point for environmental issues affecting the Township. The Commission's area of interest and activities include preservation of natural resources, conservation of open space, inventory of natural resources, water quality, environmental education, enhancement of the quality of life in the Township, solicitation of grants and historical preservation. Anything that may adversely affect or enhance the Township's environment is of interest to the Commission.</p> <p>The Commission is an advisory body to the Planning Board. The Commission reviews applications for development submitted to the Board and reports on elements that may have a negative impact on the environment.</p>
Open Space Board/Committee	Yes	Open Space Commission. In an effort to preserve Fredon's rural character, the Open Space Commission was formed in the spring of 2006. The mission of this group is to identify and prioritize land parcels for preservation, make recommendation to the township committee, and develop partnerships with allied organizations. The group focuses on land that preserves agriculture, scenic views, water quality, wildlife, and passive/active recreation. The funds to support the purchases or preservation of land are generated by the Open Space Tax. In 2008, the Township Committee reduced the Open Space Tax from 2 cents to 1 cent per \$100,000 of the revised assessed value of a home, and it was reduced again to 1/2 a cent in 2009.
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	<p>The Road Department is responsible for all the roads that are owned by the Township of Fredon, which does NOT include County Road and State Highways. During the year, the Department conducts routine maintenance on roads, storm drains, and municipally owned buildings.</p> <p>In the winter, the Department is always busy with removal of snow and ice from the roadways. The Department trims brush in the Township right of ways, mows Township owned property, and provides maintenance of Township owned buildings. While the road department will clear roads of fallen trees, they will not handle trees that have fallen on</p>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		wires, that is the responsibility of the utility company which owns the lines.
Construction/Building/Code Enforcement Department	Yes	The Building / Construction Department for Fredon is run by the NJ State Department of Community Affairs.  Code Enforcement is run by the Township through Code Enforcement and Zoning.
Emergency Management/Public Safety Department	Yes	The Township has an Office of Emergency Management.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Tree trimming, stormwater catch basin maintenance
Mutual aid agreements	Yes	Verbal agreements
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Pellow Engineering
Engineers or professionals trained in building or infrastructure construction practices	Yes	State
Planners or engineers with an understanding of natural hazards	Yes	Pellow Engineering and State
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	Yes	State Building Inspector
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	Township planner
Surveyors	No	-
Emergency manager		
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Stormwater Engineer – Pellow Engineering



### 9.3.4 Fiscal Capability

Table 9-5 summarizes financial resources available to Fredon.

Table 9-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 9.3.5 Education and Outreach Capability

Table 9-6 summarizes the education and outreach resources available to Fredon.

Table 9-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Township Committee
Personnel skilled or trained in website development	Yes	Contracted
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	No	Utilizes the County Swift911™
Natural disaster/safety programs in place for schools	Yes	Fire prevention programs are conducted annually at schools.
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Township website capable of messaging. The Township also utilizes social media.





### 9.3.6 Community Classifications

Table 9-7 summarizes classifications for community programs available to Fredon.

Table 9-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	5	2014
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 9.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 9-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 9-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate



Hazard	Adaptive Capacity - Strong/Moderate/Weak
Wildfire	Moderate

## 9.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 9-1 is responsible for maintaining this information.

### 9.4.1 NFIP Statistics

Table 9-9 summarizes the NFIP policy and claim statistics for Fredon.

Table 9-9. Fredon NFIP Summary of Policy and Claim Statistics

# Policies	2
# Claims (Losses)	2
Total Loss Payments	\$6,936.73
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA Region 2 2024

### 9.4.2 Flood Vulnerability Summary

Table 9-10 provides a summary of the NFIP program in Fredon.

Table 9-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Township occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No



NFIP Topic	Comments
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Engineer
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, online FEMA, State, and regional resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Staff and funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	December 7, 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 270 - Flood Control
What is the date that your flood damage prevention ordinance was last amended?	February 2021
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets N.J.S.A. 40-48-1 et seq
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Land Use Board considers efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has subdivision and site plan ordinances.



NFIP Topic	Comments
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 9.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 9-11 through Table 9-13.

Table 9-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 9-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
The Township had no recent major development or infrastructure between 2019 to present.					

\* Only location-specific hazard zones or vulnerabilities identified.



Table 9-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There are no known or anticipated major development or infrastructure in the next five years.					

## 9.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Fredon's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 9.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 9-1 through Figure 9-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Fredon has significant exposure. The maps show the location of potential new development, where available.



Figure 9-1. Fredon Flood and Sinkhole Hazard Area Extent and Location Map

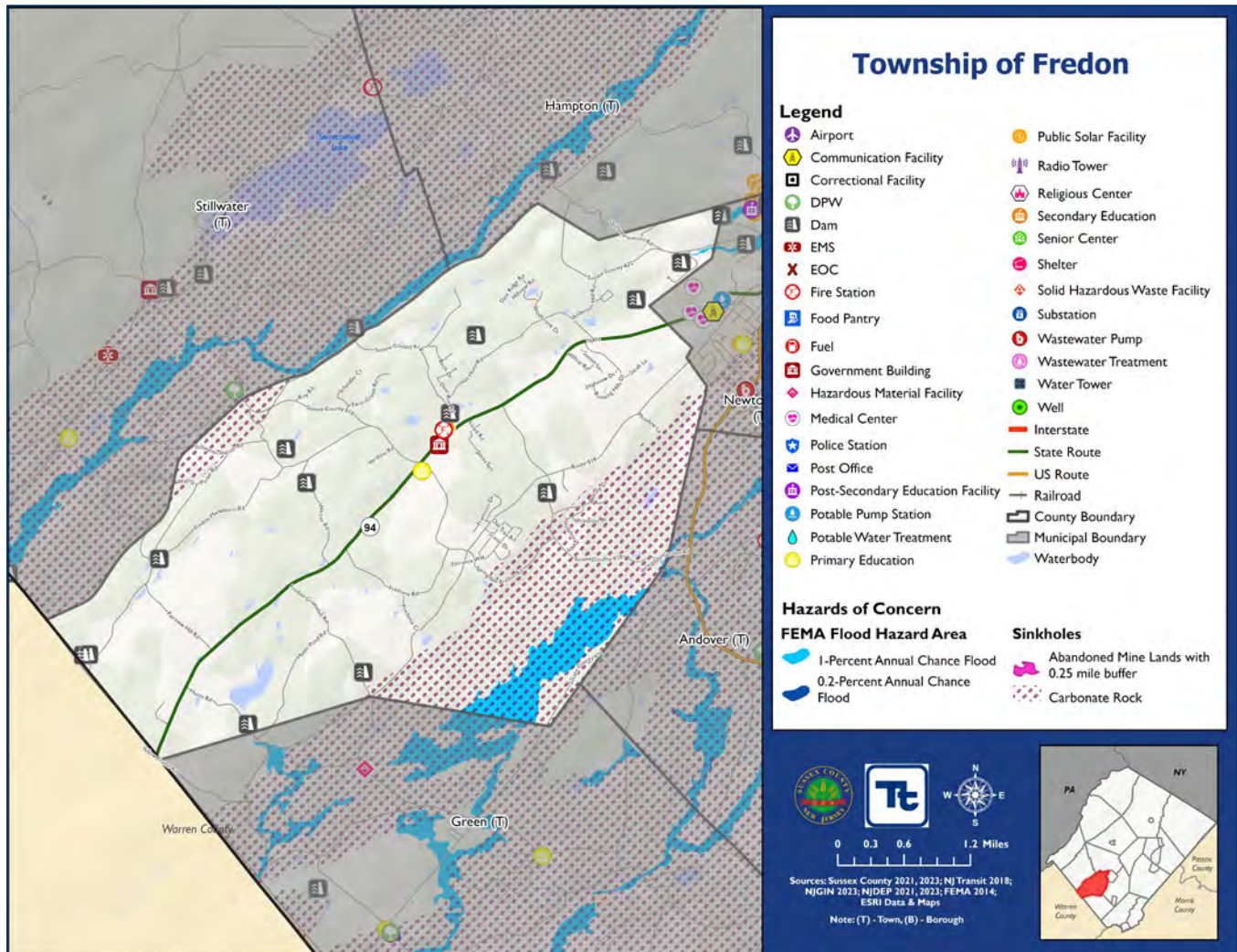




Figure 9-2. Fredon Hazardous Materials and Wildfire Hazard Area Extent and Location Map

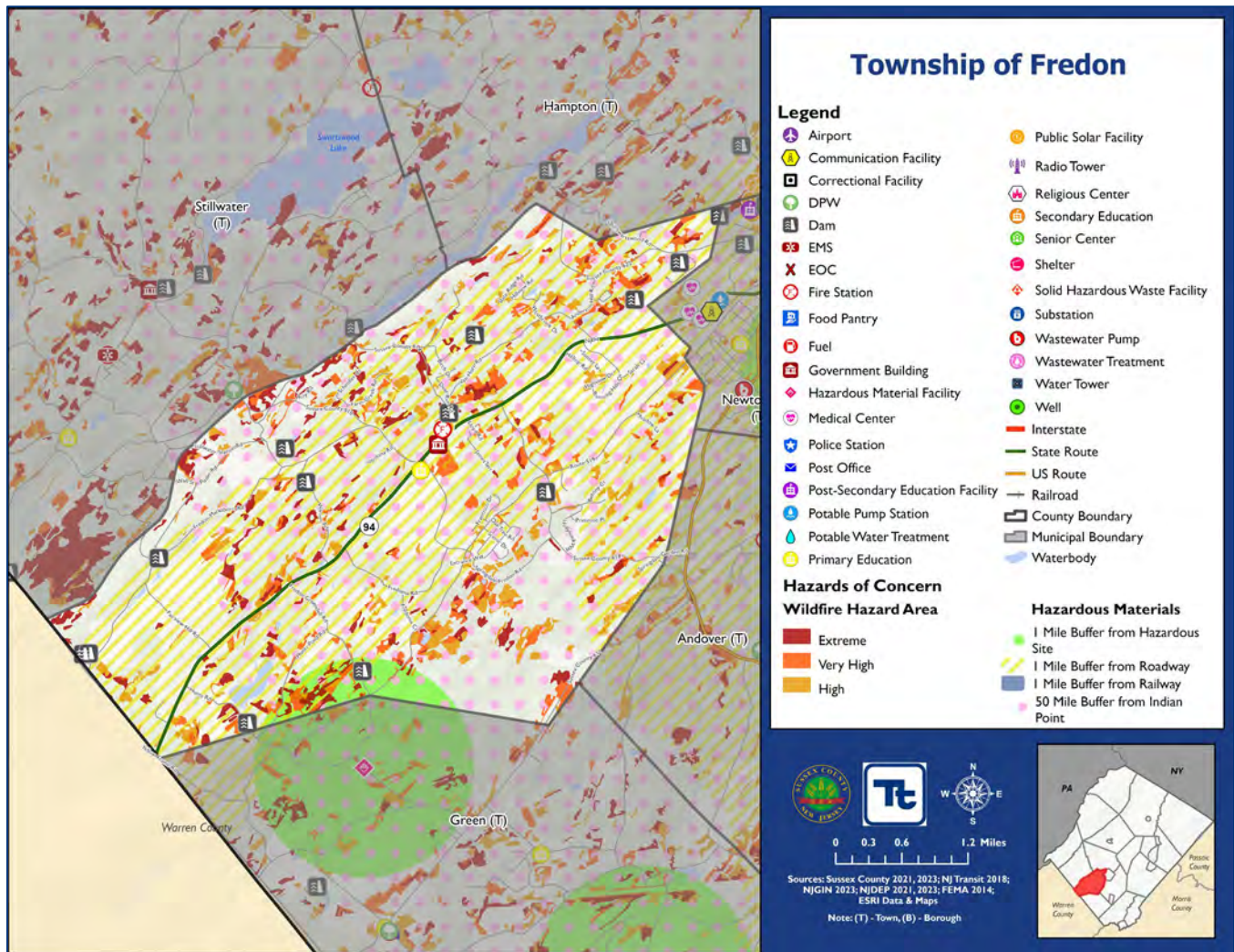
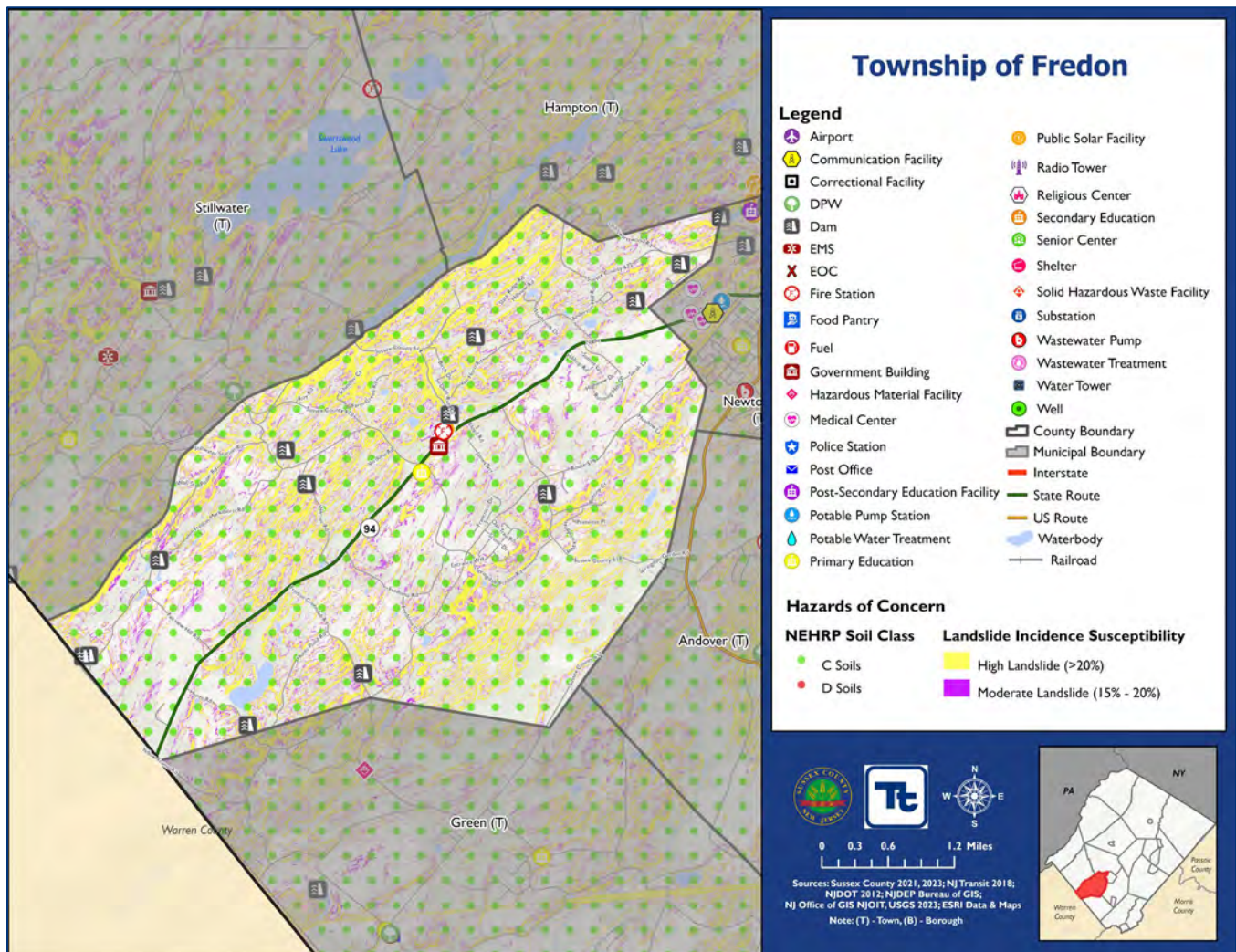




Figure 9-3. Fredon Landslide and NEHRP Soils Hazard Area Extent and Location Map







## 9.6.2 Hazard Event History

The history of natural and non-natural hazard events in Fredon is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 9-14 provides details on loss and damage in Fredon during hazard events since the last hazard mitigation plan update.

Table 9-14. Hazard Event History in Fredon

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Fredon
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Township implemented masking and social distancing mandates. Non-emergent personnel were permitted to work from home.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Downed trees and power lines. Public Works officials assisted in the clean-up on Township maintained roadways and properties.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Heavy snowfall and high snow accumulations impacted the Township. No damages or losses occurred to Township property. Public Works officials assisted in the clean-up on Township maintained roadways and properties.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Flash flooding resulted in road closures. Public Works officials assisted in the clean-up on Township maintained roadways and properties.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 9.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Fredon .



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Fredon reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the following hazard rankings were accurate.

Table 9-15 shows Fredon's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 9-15. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 9-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 9-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Fredon does not have any identified critical facilities located in the 1- or 0.2-percent annual chance floodplains.					



Source: NJGIN 2023; Sussex County 2021, 2023

## 9.6.4 Identified Issues

After review of Fredon's hazard event history, hazard rankings, hazard location, and current capabilities, Fredon identified the following vulnerabilities within the community:

- Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dam is located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:
  - J.A. Little Farm Pond Dam (poor)
- Backup power sources are necessary to maintain critical services for critical facilities. The Township Civic Center, located at 436 State Route 94 S, requires a backup power source. The site also houses the fire house and EMS. The Township and County have plans to establish the Civic Center as an emergency shelter. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.
- The Greendell Road and Long Hill catch basin is in need of replacement in order to improve stormwater. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- Deer Run requires installation of a storm drain to allow for proper stormwater management and to reduce risk of flooding. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Township has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.
- The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- The Township does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The Township is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.

\* This issue was identified as a specific area of concern based on resident response to the Sussex County Hazard Mitigation Citizen survey.



## 9.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 9.7.1 Past Mitigation Action Status

Table 9-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 9.7.2 Additional Mitigation Efforts

Fredon did not identify any additional mitigation efforts completed since the last HMP.





Table 9-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Fredon-001	Civic Center Emergency Shelter	All Hazards	OEM, FEMA, Sussex County OEM, American Red Cross	<p><b>Problem:</b> The Township would like to utilize the Civic Center at 436 NJ-94, Newton, NJ 07860 for emergency housing, use as a warming shelter, etc. However, the building will require upgrades. In addition, the shelter would require staffing as staffing from the Township is limited.</p> <p><b>Solution:</b> The Township will work with FEMA to identify what upgrades are needed to the facility to meet sheltering guidelines. Expected upgrades needed include cots, potential showering locations, etc. The Township will work with Sussex County OEM and the American Red Cross to establish sheltering staffing agreements.</p>	<p>1. Complete</p> <p>2. In working with the County, it was indicated the Civic Center is prepared to be utilized as a sheltering location but will require a generator to maintain needed electrical power.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Project completed</p>
2020-Fredon-002	Civic Center Backup Power	Severe Storm, Severe Winter Storm, Hurricane, Nor'easter	Engineer, OEM	<p><b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. The Township Civic Center requires a backup power source. The site also houses the fire house and EMS. The Township has plans to establish the Civic Center as an emergency shelter.</p> <p><b>Solution:</b> The Engineer will research what size generator is</p>	<p>1. No Progress</p> <p>2. Progress on this action has been delayed due to financial constraints.</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				needed to power the Civic Center. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Municipal Building.		
2020-Fredon-003	Greendell Road	Flood, Severe Weather	Engineer, DPW	<b>Problem:</b> The Greendell Road and Long Hill catch basin is in need of replacement in order to improve stormwater.  <b>Solution:</b> The Township Engineer will design the replacement catch basin. The DPW will install the catch basin designed by the Engineer.	1. No Progress 2. Progress on this action has been delayed due to financial constraints.	1. Include in update 2. Not applicable 3. Not applicable
2020-Fredon-004	Storm Drain and Maintain Easement Deer Run Installation	Flood, Severe Weather	Engineer, DPW	<b>Problem:</b> Deer Run requires installation of a storm drain to allow for proper stormwater management and to reduce risk of flooding.  <b>Solution:</b> The Township will secure an easement and design and construct a storm drain at Deer Run.	1. No Progress 2. Progress on this action has been delayed due to financial constraints.	1. Include in update 2. Not applicable 3. Not applicable



### 9.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Fredon participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Fredon would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 9-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 9-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 9-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X		X		X	X
Disease Outbreak		X		X			X			X
Drought		X		X			X			X
Earthquake	X	X		X	X		X			X
Flood	X	X		X	X		X		X	X
Geological Hazards	X	X		X	X		X			X
Hazardous Materials	X	X		X	X		X			X
Hurricane	X	X		X	X		X			X
Infestation				X			X			
Nor'easter	X	X		X	X		X			X
Severe Weather	X	X		X	X		X			X
Severe Winter Weather	X	X		X	X		X			X
Wildfire	X	X		X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 9-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-FredonTwp-01	Dam Repair	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-FredonTwp-02	Emergency Generators at Critical Facilities	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-FredonTwp-03	Catch Basin Improvements	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-FredonTwp-04	Deer Run Flood Mitigation	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-FredonTwp-05	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-FredonTwp-06	Certified Floodplain Manager Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-FredonTwp-07	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-FredonTwp-08	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-FredonTwp-09	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High

*Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).*



## Action 2025-FredonTwp-01. Dam Repair

<b>Lead Agency:</b>	Engineer								
<b>Supporting Agencies:</b>	Dam Manager, NJDEP Bureau of Dam Safety, County Engineer								
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire								
<b>Description of the Problem:</b>	Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections: <ul style="list-style-type: none"> <li>J.A. Little Farm Pond Dam (poor)</li> </ul>								
<b>Description of the Solution:</b>	The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.								
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected								
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget								
<b>Implementation Timeline:</b>	Within 5 years								
<b>Goals Met:</b>	1, 2, 3								
<b>Benefits:</b>	Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.								
<b>Impact on Socially Vulnerable Populations:</b>	The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.								
<b>Impact on Future Development:</b>	Future development downstream of dams will also be protected from dam failure.								
<b>Impact on Critical Facilities/Lifelines:</b>	Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.								
<b>Impact on Capabilities:</b>	Not applicable								
<b>Climate Change Considerations:</b>	Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.								
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)								
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)								
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low						
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th> <th>Evaluation</th> </tr> </thead> <tbody> <tr> <td>No Action</td> <td>Risk of dam failure remains or increases over time</td> </tr> <tr> <td>Work without County Engineer involvement</td> <td>Improvements made but may lack appropriate support from County, including data and potential funding access</td> </tr> </tbody> </table>			Action	Evaluation	No Action	Risk of dam failure remains or increases over time	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access
Action	Evaluation								
No Action	Risk of dam failure remains or increases over time								
Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access								





	Remove all dams	Without proper analysis, dam removal may increase flooding risk
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## Action 2025-FredonTwp-02. Emergency Generators at Critical Facilities

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Civic Center, Sussex County, Emergency Management, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input checked="" type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input checked="" type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input checked="" type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input checked="" type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Backup power sources are necessary to maintain critical services for critical facilities. The Township Civic Center, located at 436 State Route 94 S, requires a backup power source. The site also houses the fire house and EMS. The Township and County have plans to establish the Civic Center as an emergency shelter. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.																
<b>Description of the Solution:</b>	The Township's Engineer will assess the needs of the buildings to determine the capacity required for the generator. Following this determination, the generator and all necessary components and accessories will be installed at both the Township Civic Center, located at 436 State Route 94 S. The employees at the Civic Center will perform the needed maintenance for these generators.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget, County Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5, 6, 7																
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas. This facility has been elected as a sheltering location, which would serve vulnerable populations.																
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support new populations from future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>															
	No Action	Current problem remains															
	Microgrid	Costly and difficult to implement.															



	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.
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## Action 2025-FredonTwp-03. Catch Basin Improvements

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works, Township Administration, Emergency Management		
<b>Hazard(s) of Concern:</b>	<div> <input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials </div> <div> <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire </div>		
<b>Description of the Problem:</b>	The Greendell Road and Long Hill catch basin is in need of replacement in order to improve stormwater. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	The Township Engineer will design the required improvements to the catch basin to reduce the risk of flooding. Cost effective measures will be implemented by the Department of Public Works.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Township along Greendell Road and Long Hill.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding along Greendell Road and Long Hill. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding along Greendell Road and Long Hill, permitting first responders to traverse the roadways safely.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rain events make traversing roadways difficult, and often times unsafe.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Raise banks of stream to increase storage capacity	Cost prohibitive	
	Construct floodwall along stream	Cost prohibitive	



## Action 2025-FredonTwp-04. Deer Run Flood Mitigation

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Township Administration, Emergency Management, Public Works																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Deer Run requires installation of a storm drain to allow for proper stormwater management and to reduce risk of flooding. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.																
<b>Description of the Solution:</b>	The Township Engineer will design a cost-effective easement to assist in minimizing or eliminating the flooding issues at Deer Run. The Department of Public Works will create the easement and install the properly sized storm drain.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP																
<b>Implementation Timeline:</b>	5 years																
<b>Goals Met:</b>	2																
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Township on Vernon Crossing Road.																
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding on Vernon Crossing Road. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.																
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding on Vernon Crossing Road, permitting first responders to traverse the roadways safely.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rain events make traversing roadways difficult, and often times unsafe.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Raise banks of stream to increase storage capacity</td><td>Cost prohibitive</td></tr><tr><td>Construct floodwall along stream</td><td>Cost prohibitive</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Raise banks of stream to increase storage capacity	Cost prohibitive	Construct floodwall along stream	Cost prohibitive								
Action	Evaluation																
No Action	Current problem remains																
Raise banks of stream to increase storage capacity	Cost prohibitive																
Construct floodwall along stream	Cost prohibitive																



## Action 2025-FredonTwp-05. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Township has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Township events, the Township newsletters, social media, the Township website, and having the materials on display for the public at Township libraries and offices. Consider hiring staff to work directly with socially vulnerable populations. Work with Sussex County to identify and create a list of socially vulnerable populations utilizing Register Ready.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Township. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township will become educated on hazards risks. The Township will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program. It would also assist the Township in identifying where socially vulnerable populations are located in the jurisdiction.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	





	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
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## Action 2025-FredonTwP-06. Certified Floodplain Manager Training

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Engineering, Building Department, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.																
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Township Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5																
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.																
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.																
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.																
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.																
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input checked="" type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Hire outside contractors for floodplain administration</td><td>Costly</td></tr><tr><td>Establish shared service agreements for floodplain administration from neighboring municipalities</td><td>Neighboring municipalities are unlikely to have the staff capacity to take on this role</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Hire outside contractors for floodplain administration	Costly	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role								
Action	Evaluation																
No Action	Current problem remains																
Hire outside contractors for floodplain administration	Costly																
Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role																



## Action 2025-FredonTwp-07. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The Township does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The Township is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The Township will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP) </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP) </div> </div>		
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI) </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES) </div> </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-FredonTwp-01. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Planning Board, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.		
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 2 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.		
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	
	Wait for information from the State on flood-damaged properties	May be a delay in notice	



## Action 2025-FredonTwp-09. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Construction Official, Township Administration, NFIP State Coordinator, FEMA Regional Office																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<b>Description of the Problem:</b>	A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.																
<b>Description of the Solution:</b>	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Township budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5,7																
<b>Benefits:</b>	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.																
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.																
<b>Impact on Capabilities:</b>	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.																
<b>Climate Change Considerations:</b>	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem exists</td></tr><tr><td>Modify existing flood damage prevention ordinance</td><td>Time intensive</td></tr></table>	Action	Evaluation	No Action	Current problem exists	Modify existing flood damage prevention ordinance	Time intensive										
Action	Evaluation																
No Action	Current problem exists																
Modify existing flood damage prevention ordinance	Time intensive																





	Leave NFIP	Residents lose flood insurance coverage
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## 10. TOWNSHIP OF GREEN

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Green with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Green, describes who participated in the planning process, assesses Green's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 10.1 HAZARD MITIGATION PLANNING TEAM

The Township of Green identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Municipal Clerk/Administrator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 10-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 10-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Mark Zschack, Municipal Clerk/Administrator Address: 150 Kennedy Road, Tranquility, NJ 07879 Phone Number: (908) 852-9333 X18 Email: clerkadmin@greentwp.com	Name/Title: Margaret "Peg" Phillips, Mayor Address: 150 Kennedy Road, Tranquility, NJ 07879 Phone Number: (908) 853-9333 Email: pphillips@greentwp.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Craig Bollmann, Zoning Official Address: 150 Kennedy Road, Tranquility, NJ 07879 Phone Number: (908) 852-9333 X17 Email: zoning@greentwp.com	
<b>Additional Contributors</b>	
Name/Title: Mark Zschack, Municipal Clerk/Administrator Method of Participation: Provided key information to the development of the jurisdictional annex. Reviewed and approved final draft of annex signed signature page	
Name/Title: Margaret "Peg" Phillips, Mayor Method of Participation: Provided key information to the development of the jurisdictional annex.	
Name/Title: Craig Bollmann, Zoning Official Method of Participation: Provided key information to the development of the jurisdictional annex.	
Name/Title: Cory Stoner, Township Engineer Method of Participation: Provided key information to the development of the jurisdictional annex. Reviewed and approved final draft of annex signed signature page	
Name/Title: Jessica Caldwell, Principal Planner Method of Participation: Provided key information to the development of the jurisdictional annex. Reviewed and approved final draft of annex signed signature page	



Primary Point of Contact	Alternate Point of Contact
Name/Title: Jason Miller, Superintendent of Public Works Method of Participation: Provided key information to the development of the jurisdictional annex.	
Name/Title: Chris Lopanik, OEM Coordinator Method of Participation: Provided key information to the development of the jurisdictional annex. Reviewed and approved final draft of annex signed signature page	
Name/Title: Patty DeClesis, Deputy Municipal Clerk Method of Participation: Provided key information to the development of the jurisdictional annex.	

## 10.2 COMMUNITY PROFILE

Green Township is located in southwestern Sussex County and is bordered to the north by Fredon and Andover Townships, to the south and west by Warren County and to the east by Byram Township. The following unincorporated communities are located within the Township: Huntsburg, Greendell, Tranquility, and Huntsville. The Pequest River, Bear Brook, and Trout Brook are named streams that flow through the Township. Lake Tranquility, Buckmire Pond, and Turtle Pond are the larger named lakes located in the Township.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 1.9-percent of the population is 5 years of age or younger, 2.9-percent is 65 years of age or older, 2.5-percent is non-English speaking, 2-percent is below the poverty threshold, and 3-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Township of Green, 14-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 10.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Green performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events



For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Green to identify opportunities for integrating mitigation concepts into ongoing Township procedures.

### 10.3.1 Planning and Regulatory Capability and Integration

Table 10-2 summarizes the planning and regulatory tools that are available to Green.

Table 10-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019; State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)	State & Local	Zoning Official
How has or will this be integrated with the HMP and how does this reduce risk? <i>The building code provides guidance on how to design, build, and operate buildings. Modern building codes lead to major reductions in property losses from natural disasters.</i>				
<b>Zoning/Land Use Code</b>	Yes	State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49; Chapter 30, Article XII	Local	Zoning Official
How has or will this be integrated with the HMP and how does this reduce risk? <i>Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan.</i>				
<b>Subdivision Code</b>	Yes	P.L.1975, c.291 (C.40:55D-47): 40:55D-37; Chapter 30, Article IX	Local	Zoning Official
How has or will this be integrated with the HMP and how does this reduce risk? <i>The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.</i>				
<b>Site Plan Code</b>	Yes	Municipal Land Use Law, NJ Statute 40:27-6.2; Chapter 30, Article IX	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.*

<b>Stormwater Management Code</b>	Yes	Title 7 of the NJ Administrative Code, N.J.A.C. 7:8; N.J.A.C. 5:21 – Section 30-17.1A.	Local & County	Township Committee
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How has or will this be integrated with the HMP and how does this reduce risk?

The purpose of the Stormwater Management Code for the State of New Jersey is to minimize pollution caused by stormwater and restore, enhance, and maintain the integrity of waters throughout the State.

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<ul style="list-style-type: none"> <li>Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?</li> <li>Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.</li> <li>Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.</li> <li>Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.</li> <li>Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.</li> <li>Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?</li> <li>Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?</li> </ul>				

Not all provisions of this law have become effective at the time of the writing of this plan.

<b>Growth Management</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Environmental Protection Ordinance(s)</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Flood Damage Prevention Ordinance</b>	Yes	NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52); National Flood Control Act of 1968 (NFIP); Chapter 25, adopted in 2007 and amended effective 6/20/2016.	State, Federal and Local	Zoning Official
How has or will this be integrated with the HMP and how does this reduce risk?				
<p><i>It is the purpose of this chapter, to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to Protect human life and health; Minimize expenditure of public money for costly flood control projects; Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; Minimize prolonged business interruptions; Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard; Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas; Ensure that potential buyers are notified that property is in an area of special flood hazard; and Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</i></p>				
<b>Wellhead Protection</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Emergency Management Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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**Climate Change Ordinance**

No

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How has or will this be integrated with the HMP and how does this reduce risk?

**Other: Special Purpose Ordinance (i.e., sensitive areas, steep slope)**

Yes

Soil and Soil Removal Chapter 26

County &amp; Local

Township Committee and Engineering Department

How has or will this be integrated with the HMP and how does this reduce risk?

*Purpose to control soil erosion and sediment damages and related environmental damage by requiring adequate provisions for surface water retention and drainage and for the protection of exposed soil surfaces in order to promote the safety, public health, convenience and general welfare of the community.*

**PLANNING DOCUMENTS****General/Comprehensive Plan**

Yes

2018 Revised NJ Statute 40:27-2; State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28; Master Plan Reexamination Report, Green Township, September 2008.

Local

Planning Board

How has or will this be integrated with the HMP and how does this reduce risk?

*The county planning board shall make and adopt a master plan for the physical development of the county. The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county. The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan and to advise the board of chosen commissioners with respect to the formulation of development programs and budgets for capital expenditures. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28 provides the required components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity.*

**Capital Improvement Plan**

No

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How has or will this be integrated with the HMP and how does this reduce risk?

**Disaster Debris Management Plan**

No

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How has or will this be integrated with the HMP and how does this reduce risk?

**Floodplain Management or Watershed Plan**

No

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How has or will this be integrated with the HMP and how does this reduce risk?

**Stormwater Management Plan**

No

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How has or will this be integrated with the HMP and how does this reduce risk?

-



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Agriculture Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Other</b>	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

#### RESPONSE/RECOVERY PLANNING

<b>Emergency Operations Plan</b>	Yes	Township of Green EOP, 2023	Local	OEM
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Emergency Operations Plan defines the scope of preparedness and emergency management activities necessary in the Township. This document assigns responsibility to organizations and individuals for carrying out specific actions that exceed routine responsibility at projected times and places during an emergency; sets lines of authority and organizational relationships and shows how all actions will be coordinated; identifies how people and property are protected; and identifies personnel, equipment, facilities, supplies, and other resources available within the jurisdiction or by agreement with other jurisdictions.*

<b>Continuity of Operations Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Substantial Damage Response Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Post-Disaster Recovery Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Public Health Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

### 10.3.2 Development and Permitting Capability

Table 10-3 summarizes the capabilities of Green to oversee and track development.



Table 10-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	The Building Department is responsible for issuing development permits.
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain development permits
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	-
Describe the level of buildout in your jurisdiction.	N/A	There are limited areas for development within the Township.

### 10.3.3 Administrative and Technical Capability

Table 10-4 summarizes potential staff and personnel resources available to Green and their current responsibilities that contribute to hazard mitigation.

Table 10-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Planning Board consists of nine members with up to four alternates. The Planning Board shall exercise its powers in accordance with the MLUL regarding the Township Master; subdivision and site plan review; any official map adopted by the Township Council; the Zoning Ordinance, including conditional uses; any capital improvements programs; variances and certain building permits in conjunction with subdivision, site plan and conditional use approval pursuant to the Board's ancillary powers. The Planning Board has the same powers, extent, and is subject to the same restrictions, as a zoning board of adjustment.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	The Environmental Advisory Committee provides advice and recommendations to the Planning Board on environmental impacts of land use in the municipality in an effort to ensure that planning reflects consideration of natural resources and quality of life.



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Open Space Board/Committee	Yes	The Open Space Committee is comprised of one member of the Township Committee and four citizens of the Township. There may not be more than two alternate members. The Open Space Committee prepares a report recommending which parcels of land should be acquired in fee and/or those parcels of land from which the Township should acquire development rights only; submits to the Township Committee a prioritized list of properties which it recommends that the Township acquire and/or properties from which it recommends that development rights should be acquired; and holds public meetings, which public meetings shall be held in accordance with the Open Public Meetings Act.
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	<p>The Road Department is responsible for all the roads that are owned by the Township of Green. During the year, the Road Department conducts routine maintenance on the roads, storm drains, and municipally owned buildings.</p> <p>From spring to fall, streets throughout the Township are swept. In the winter, the Department is always busy with removal of snow and ice from the roadways. The Department trims brush in the Township right of ways, mows Township owned property, and provides maintenance of Township owned buildings.</p>
Construction/Building/Code Enforcement Department	No	The Construction Department is through shared services with Independence Township, Warren County.
Emergency Management/Public Safety Department	Yes	The Emergency Services Department includes the Fire Department, Rescue Squad, and Emergency Management.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	The Township works to identify and remove trees on municipal property that could affect electric power.
Mutual aid agreements	Yes	Fire, First Aid
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Township Engineer/Township Planner
Engineers or professionals trained in building or infrastructure construction practices	Yes	Township Engineer
Planners or engineers with an understanding of natural hazards	Yes	Township Engineer/Township Planner



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Staff with expertise or training in benefit/cost analysis	Yes	Township Engineer
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Township Engineer
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Township Engineer
Emergency manager	Yes	Office of Emergency Management
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Stormwater Engineer – Township Engineer

### 10.3.4 Fiscal Capability

Table 10-5 summarizes financial resources available to Green.

Table 10-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	Yes
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 10.3.5 Education and Outreach Capability

Table 10-6 summarizes the education and outreach resources available to Green.





Table 10-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Township Committee
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	Yes	Facebook, X, NextDoor
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Smart911
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Notification system, social media, public website, newsletter

### 10.3.6 Community Classifications

Table 10-7 summarizes classifications for community programs available to Green.

Table 10-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	05/5Y	July 2014
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	None	Registered 12/16/2016
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 10.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 10-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.



- Weak: Capacity does not exist or could use substantial improvement

Table 10-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor'easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

## 10.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 10-1 is responsible for maintaining this information.

### 10.4.1 NFIP Statistics

Table 10-9 summarizes the NFIP policy and claim statistics for Green.

Table 10-9. Green NFIP Summary of Policy and Claim Statistics

# Policies	5
# Claims (Losses)	3
Total Loss Payments	\$21,582.77
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*



*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

*Source: FEMA Region II 2024*

## 10.4.2 Flood Vulnerability Summary

Table 10-10 provides a summary of the NFIP program in Green.

Table 10-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Township occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Municipal Engineer
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, online FEMA, State, and regional resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Township would consider attending continuing education and certification training on floodplain management.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review, engineering capability



NFIP Topic	Comments
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Staff and funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	February 16, 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 25, Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	June 2016
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Planning Board considers efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has subdivision and site plan ordinances.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 10.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 10-11 through Table 10-13.

Table 10-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	1	0	1	2
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	2	2
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	1	0	0	1



	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	1	0	1	2
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 10-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Cedar Peak	Commercial	1	120 Airport Road	No	Warehouse/Under Construction

\* Only location-specific hazard zones or vulnerabilities identified.

Table 10-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There are no known or anticipated major development or infrastructure in the next five years.					

## 10.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Green's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 10.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 10-1 through Figure 10-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Green has significant exposure. The maps show the location of potential new development, where available.



Figure 10-1. Green Flood and Sinkhole Hazard Area Extent and Location Map

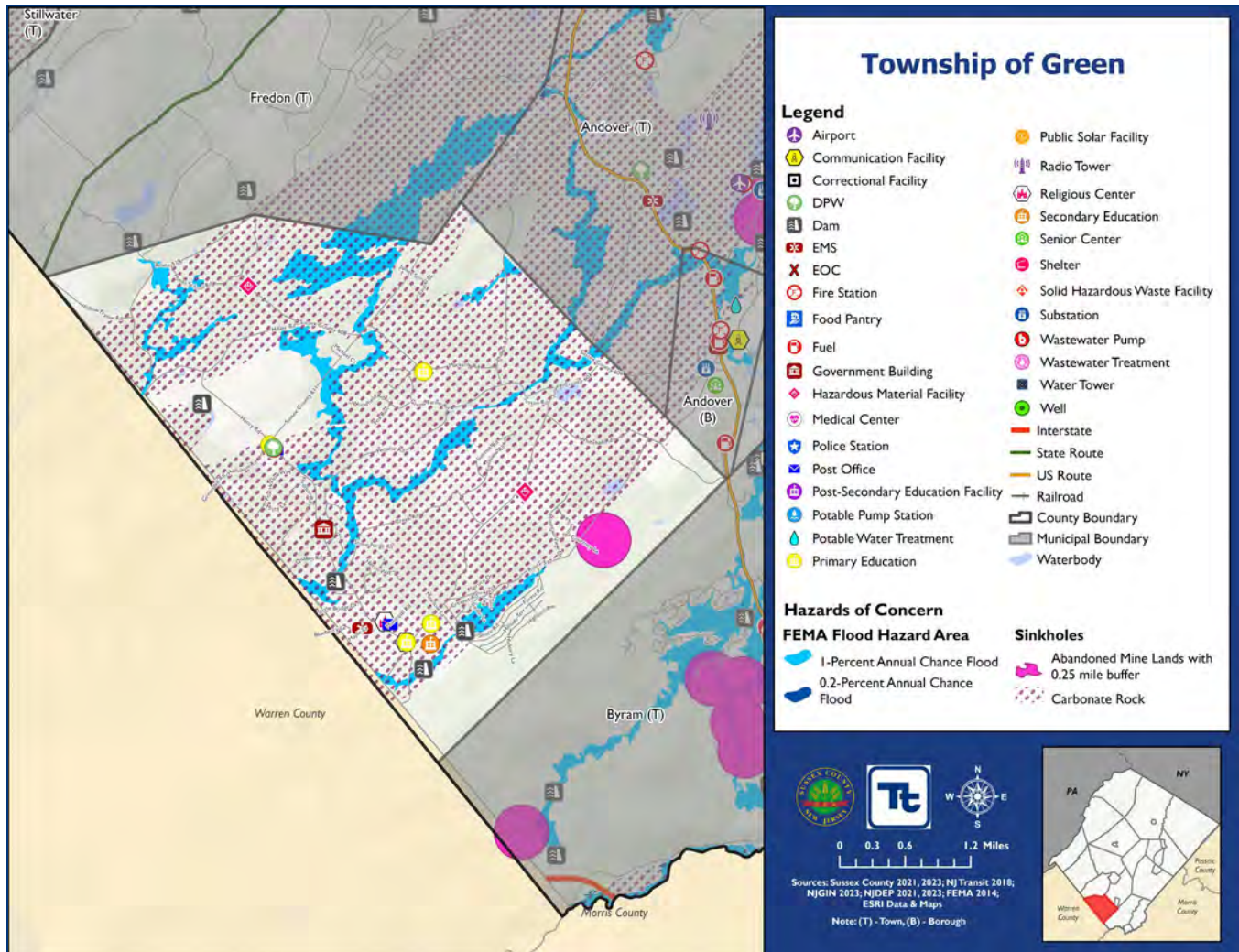




Figure 10-2. Green Hazardous Materials and Wildfire Hazard Area Extent and Location Map

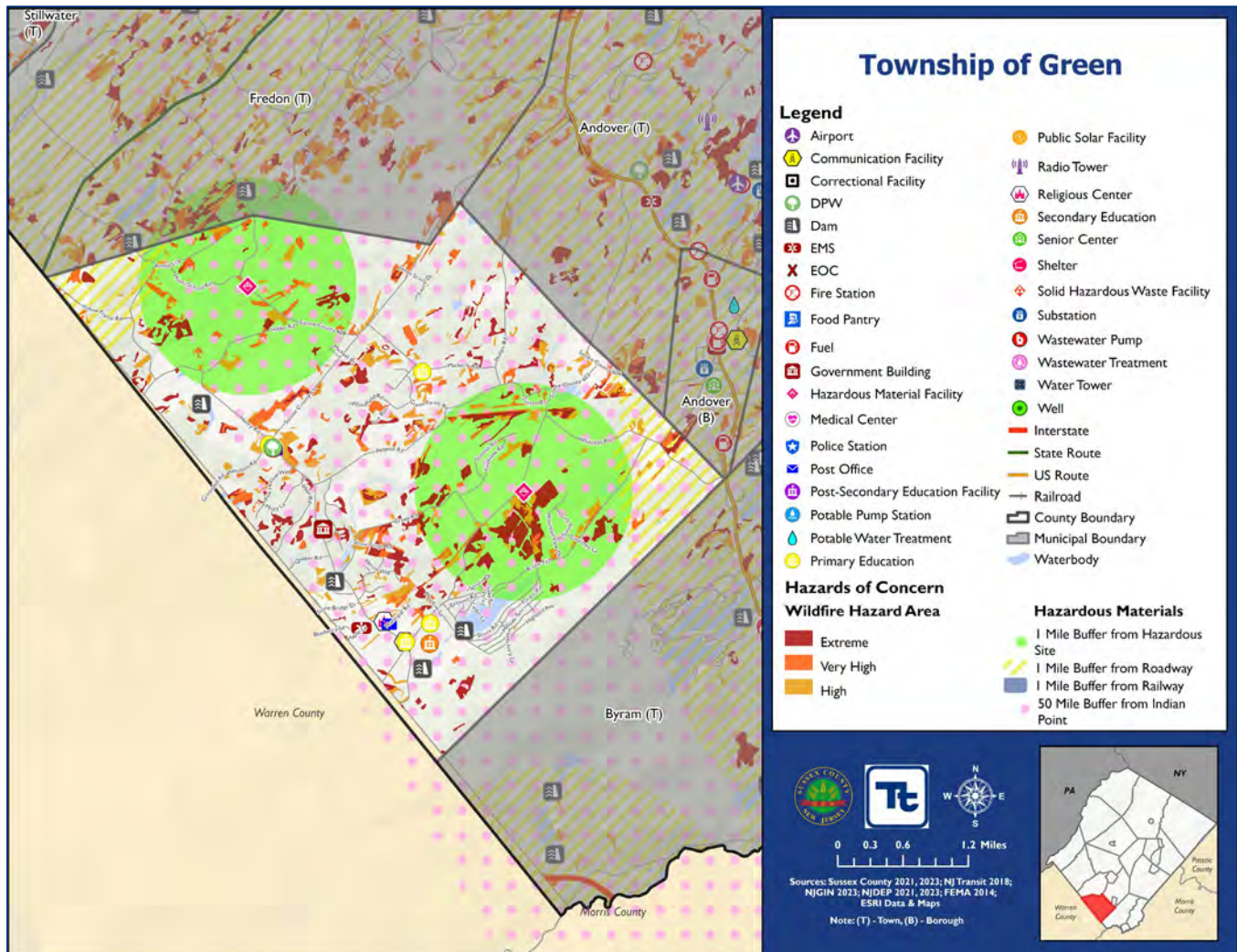
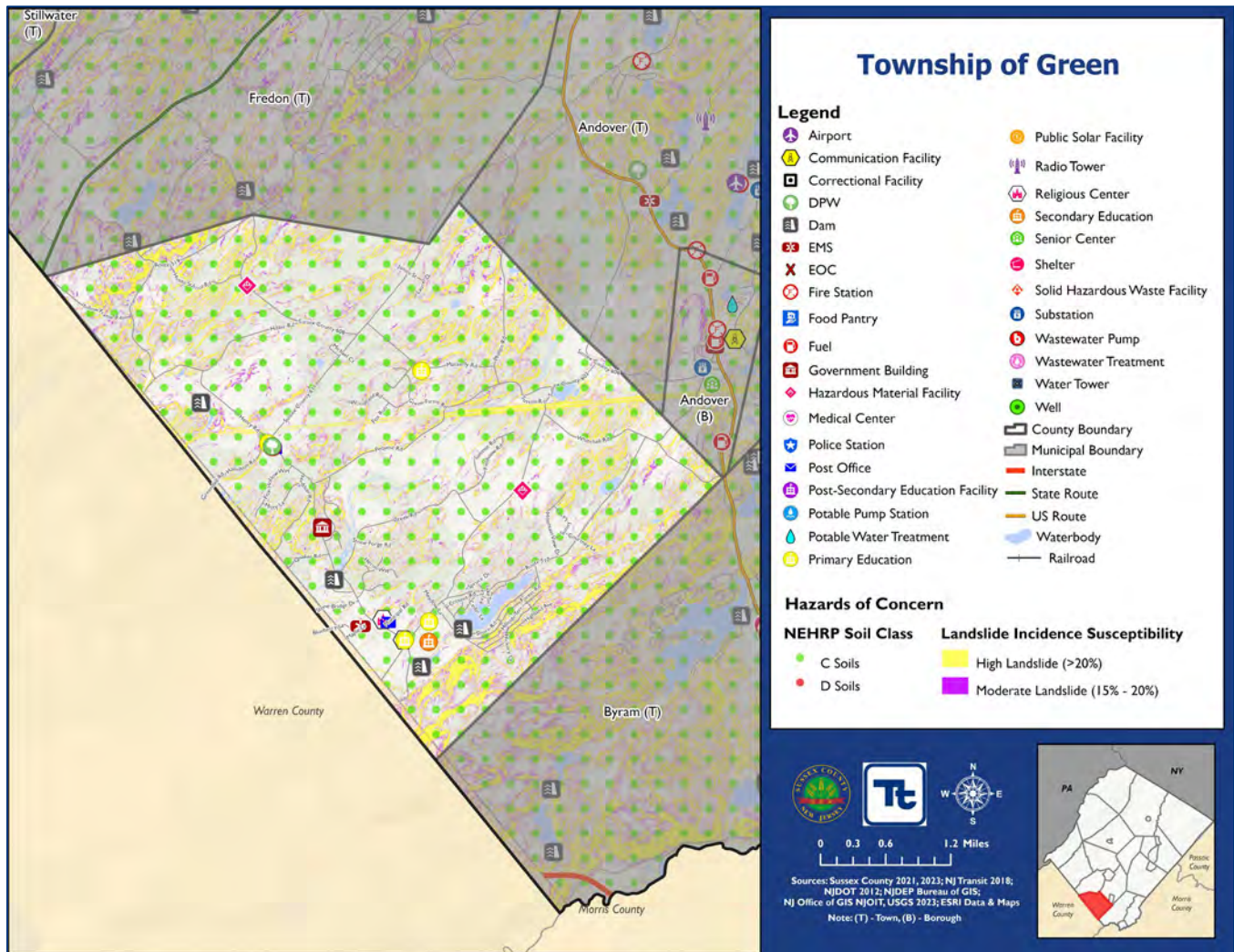




Figure 10-3. Green Landslide and NEHRP Soils Hazard Area Extent and Location Map





## 10.6.2 Hazard Event History

The history of natural and non-natural hazard events in Green is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 10-14 provides details on loss and damage in Green during hazard events since the last hazard mitigation plan update.

Table 10-14. Hazard Event History in Green

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Green
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	No damages or losses recorded for the Township.
January 31-February 2, 2021	Severe Winter Storm and Snowstorm (FEMA-DR-4597)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	No damages or losses recorded for the Township.
September 1-3, 2021	Remnants of Hurricane Ida (FEMA-DR-4614)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	No damages or losses recorded for the Township.
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Township followed and enforced masking and social distancing mandates.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 10.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Green .

### Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of





the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Green reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the following:

- The Township agrees with the following hazard rankings developed during the hazard ranking review.

Table 10-15 shows Green's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 10-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Low
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Low

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 10-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 10-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Tranquility Church Dam	Dam	Yes	Yes	2025-GreenTwp-10	-
Tranquility Mill Dam	Dam	Yes	Yes	2025-GreenTwp-10	-

Source: Sussex County 2021, 2023; NJGIN 2023



In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Green:

- Lake Tranquility Dam

### **10.6.4 Identified Issues**

After review of Green's hazard event history, hazard rankings, hazard location, and current capabilities, Green identified the following vulnerabilities within the community:

- Lake Tranquility properties are inundated with ground water. Ground water seepage can impact basement and ground-level storage areas and living conditions. Flooded roadways around Lake Tranquility can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- Water systems are limited in Green Township therefore the need for a water source to combat fires is paramount. The Township has a lack of stand pipes at draft stations for emergency equipment which could result in the inability to combat and extinguish fires.
- The Township lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- Hunts School Road has an undersized drainage pipe that contributes to flooding. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- Backup power sources are necessary to maintain critical services for critical facilities. The Tranquility Post Office (28 Kennedy Road) and the Greendell Post Office (243 Kennedy Road) lack backup power to maintain operations in the event of an emergency. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.
- No mapping exists of the drainage system in Green Township to help identify and solve problem areas. Information on drainage systems can be used to optimize stormwater management efforts and monitor potential overflows during floods and severe storm events. Not having this information readily available presents an obstacle to comprehensive stormwater management.
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. The Township's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- The Tranquility Church Dam and Tranquility Mill Dam, both critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has a high-hazard potential dam, the Lake Tranquility Dam, within its jurisdiction. These structures have the potential to impact persons and structures within inundation areas.



- The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Township has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.
- Lake Tranquility Dam is a Class I High Hazard Dam that is located on Lake Tranquility. The dam is owned by the Township. Failure of the dam could result in inundation of densely populated areas, critical facilities and community lifelines, and several local roadways including Scenic Drive, Shore Road, Meadow Lane, Pondview Circle, and Mallard Drive. Although the dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 10.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 10.7.1 Past Mitigation Action Status

Table 10-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 10.7.2 Additional Mitigation Efforts

Green did not identify any additional mitigation efforts completed since the last HMP.





Table 10-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Green-001	Whitehall Road Roadway Elevation	Flood, Severe Weather	Engineer, DPW	<p><b>Problem:</b> Road flooding on Whitehall Road near Washers Pond restricts normal travel and greatly effects emergency access. During Hurricane Irene the road surface was covered for months by six feet of water. In high rain years the roadway is partially flooded also creating a driving hazard.</p> <p><b>Solution:</b> A four hundred- and fifty-foot (450') section of the road will need to be reconstructed. The area of flooding will need to be raised approximately eighteen inches (18") to mitigate the semi-annual flooding. The slope along Washers Pond will require grading and a guide rail needs to be replaced.</p>	<p>1. Completed</p> <p>2. This project has been completed.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. The project was completed</p>
2021-Green-002	Lake Tranquility Drainage Study	Flood	Engineer	<p><b>Problem:</b> Lake Tranquility properties are inundated with water runoff and ground water.</p> <p><b>Solution:</b> The Township will conduct drainage study of the entire lake community and determine if actions can be taken to address groundwater flooding in Lake Tranquility. Once actions are identified, the Township will carry out the cost-effective options. A potential action would be to implement a storm water runoff management system for 350 homes in Lake Tranquility area as funding and private cooperation permit. Drainage easements need to be</p>	<p>1. No Progress</p> <p>2. Due to financial constraints no progress has been made on this project.</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				created allowing the Township the authorization to access and maintain.		
2021-Green-003	Stand Pipes at Draft Sites	Wildfire, Hazardous Materials	Administrator , OEM Coordinator	<p><b>Problem:</b> Water systems are limited in Green Township therefore the need for a water source to combat fires is paramount. The Township has a lack of stand pipes at draft stations for emergency equipment.</p> <p><b>Solution:</b> Additional areas for the installation of a stand pipe or draft stations will be researched and determined. Once the locations are established funding and or easements will need to be secured.</p>	<p>1. No Progress</p> <p>2. Due to financial constraints no progress has been made on this project.</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>
2021-Green-004	Portable Water Pumps	Flood	Fire Chief, Administrator	<p><b>Problem:</b> Basements of homes in the Township flood during periods of heavy rain and the residents do not have pumps to remove the water.</p> <p><b>Solution:</b> Purchase/replace portable water pumps (12) to ensure those who experience flooding in conjunction with loss of power are adequately protected from loss of structure and/or mold issues.</p>	<p>1. Completed</p> <p>2. Discussions between OEM, Administrator, and Fire Chief it was determined that 12 pumps was an overly ambitious goal for a municipality of less than 4000 people. Taking in consideration our vehicle fleet and manpower it was determined that the 5 pumps in our inventory will be sufficient to meet the needs of the Township. Two of these pumps were recently acquired for Green Twp OEM</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Project has been completed</p>
2021-Green-005	Pequest River	Flood, Severe Weather	Township Engineer	<p><b>Problem:</b> The Pequest River experiences streambank erosion.</p> <p><b>Solution:</b> Identify areas of the Pequest River where erosion and undermining of the river bank are occurring. Work with the Township Engineer and private land</p>	<p>1. Discontinue</p> <p>2. No longer an initiative of the Township</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. No longer an initiative of the Township</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				owners in developing plans to stabilize these locations.		
2021-Green-006	All Hazards Outreach	All Hazards	OEM Coordinator, in coordination with SCDEM	<b>Problem:</b> The Township lacks outreach to address hazards, emergency preparedness, and hazard mitigation. <b>Solution:</b> Develop and conduct all - hazards public education and outreach program for hazard mitigation and preparedness. Utilize Township social media outlets to communicate with township residents.	1. Ongoing Capability 2. Both Green Township and the Green Township OEM have developed public outreach capabilities through social media sites (Facebook/Twitter/NextDoor) and emergency notifications through Rave. Residents are urged to signup though Smart911 to enroll in alerts. As information on public education and outreach programs becomes available it is disseminated via social media and the township website.	1. Discontinue 2. Not applicable 3. Ongoing capability/maintenance
2021-Green-007	Disaster Debris Management Plan	All Hazards	OEM, Public Works	<b>Problem:</b> The Township lacks a Disaster Debris Management Plan. <b>Solution:</b> The Township will develop and adopt a Disaster Debris Management Plan.	1. No progress 2. Due to other Township prioritizes, there has been no progress on this action.	1. Include in update 2. Not applicable 3. Not applicable
2021-Green-008	Hunts School Road	Flood, Severe Weather	Public Works	<b>Problem:</b> Hunts School Road has an undersized drainage pipe that contributes to flooding. <b>Solution:</b> The Township will replace and upsize the drainage pipe.	1. No Progress 2. Due to financial constraints no progress has been made on this project.	1. Include in update 2. Not applicable 3. Not applicable
2021-Green-009	Post Office Backup Power	Hurricane, Nor'Easter, Severe Winter Weather,	OEM, Engineer, Administration	<b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. The Tranquility Post Office and the Greendell Post Office	1. No Progress 2. Due to financial constraints no progress has been made on this project.	1. Include in update 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Severe Weather		lack backup power. The Township owns both properties.  <b>Solution:</b> The Township will consider the installation of backup generators at each site. The Engineer will research what size generator is needed to power the facilities. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the facilities.		
2021-Green-010	Drainage System Mapping	Flood, Severe Weather	Public Works	<b>Problem:</b> No mapping exists of the drainage system in Green Township to help identify and solve problem areas.  <b>Solution:</b> The Township will contract with an engineering firm to create detailed mapping of all drainage infrastructure.	1. No Progress 2. Due to financial constraints no progress has been made on this project.	1. Include in update 2. Not applicable 3. Not applicable
2021-Green-011	Flood Damage Prevention Ordinance Update	Flood	FPA, Administration	<b>Problem:</b> The Township's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.  <b>Solution:</b> The Township will update the Flood Damage Prevention Ordinance to include the freeboard requirement.	1. No progress 2. Due to other Township prioritizes, there has been no progress on this action.	1. Include in update 2. Not applicable 3. Not applicable



### 10.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Green participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Green would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 10-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 10-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 10-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X		X		X	X
Disease Outbreak		X		X			X			X
Drought		X		X			X			X
Earthquake	X	X		X	X		X			X
Flood	X	X	X	X	X		X	X	X	X
Geological Hazards	X	X		X	X		X			X
Hazardous Materials	X	X		X	X		X		X	X
Hurricane	X	X	X	X	X		X	X	X	X
Infestation				X			X			
Nor'easter	X	X	X	X	X		X	X	X	X
Severe Weather	X	X	X	X	X		X	X	X	X
Severe Winter Weather	X	X		X	X		X			X
Wildfire	X	X		X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities





Table 10-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-GreenTwp-01	Lake Tranquility Drainage Study	1	1	1	1	1	0	1	1	1	1	1	1	0	0	11	High
2025-GreenTwp-02	Stand Pipes at Draft Sites	1	1	1	1	1	0	1	1	1	0	1	1	1	0	11	High
2025-GreenTwp-03	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-GreenTwp-04	Hunts School Road Drainage Improvements	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-GreenTwp-05	Emergency Generators at Critical Facilities	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-GreenTwp-06	Drainage System Mapping	0	1	1	1	1	1	1	0	1	1	1	1	1	1	12	High
2025-GreenTwp-07	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-GreenTwp-08	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-GreenTwp-09	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-GreenTwp-10	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-GreenTwp-11	Certified Floodplain Manager Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-GreenTwp-12	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-GreenTwp-13	Lake Tranquility Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



## Action 2025-GreenTwp-01. Lake Tranquility Drainage Study

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works, Township Administration, NJDEP																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Lake Tranquility properties are inundated with ground water. Ground water seepage can impact basement and ground-level storage areas and living conditions. Flooded roadways around Lake Tranquility can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.																
<b>Description of the Solution:</b>	The Township Engineer will conduct a drainage study of the entire lake community and determine if actions can be taken to address groundwater flooding in Lake Tranquility. Once actions are identified, the Township will carry out the cost-effective options, either through Public Works or a hired contractor. A potential action would be to implement a storm water runoff management system for 350 homes in Lake Tranquility area as funding and private cooperation permit. Drainage easements need to be created allowing the Township the authorization to access and maintain.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, BRIC, FMA, Township Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2																
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Township surrounding Lake Tranquility.																
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding surrounding Lake Tranquility. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.																
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding surrounding Lake Tranquility, permitting first responders to traverse the roadways safely.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rains can increase the likelihood of potential catastrophic flooding.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input checked="" type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input checked="" type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input checked="" type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input checked="" type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Raise banks of lake to increase storage capacity</td><td>Cost prohibitive</td></tr><tr><td>Expand lake</td><td>Cost prohibitive</td></tr></table>	Action	Evaluation	No action	Current problem continues	Raise banks of lake to increase storage capacity	Cost prohibitive	Expand lake	Cost prohibitive								
Action	Evaluation																
No action	Current problem continues																
Raise banks of lake to increase storage capacity	Cost prohibitive																
Expand lake	Cost prohibitive																



## Action 2025-GreenTwp-02. Stand Pipes at Draft Sites

<b>Lead Agency:</b>	Fire Department																
<b>Supporting Agencies:</b>	Township Administration, Emergency Management, Engineering																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Water systems are limited in Green Township therefore the need for a water source to combat fires is paramount. The Township has a lack of stand pipes at draft stations for emergency equipment which could result in the inability to combat and extinguish fires.																
<b>Description of the Solution:</b>	Additional areas for the installation of a stand pipe or draft stations will be researched and determined. Once the locations are established funding and or easements will need to be secured.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	HMGP, BRIC, Township Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2																
<b>Benefits:</b>	This action will benefit the entire Township by providing additional locations for first responders to draw water from to battle fires, whether it be from wildfires or a hazard material release.																
<b>Impact on Socially Vulnerable Populations:</b>	This action will permit first responders to expand their ability to support responses to location near or where socially vulnerable populations live. Additional stand pipes will allow first responders to extinguish fires which may impact these populations.																
<b>Impact on Future Development:</b>	This action will support emergency operations, in particular the extinguishing of fires, in the vicinity of future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will permit the safety and security lifeline to effectively respond to wildfires and/or fires caused by hazardous material releases. It will also expand the water system lifeline by providing additional locations for stand pipes.																
<b>Impact on Capabilities:</b>	This action will expand the response and recovery capabilities of the Township.																
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Purchase tanker truck for water</td><td>Slow emergency service response times.</td></tr><tr><td>Develop contract with neighboring towns for fire response</td><td>Too slow of response times, towns may be unable</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Purchase tanker truck for water	Slow emergency service response times.	Develop contract with neighboring towns for fire response	Too slow of response times, towns may be unable								
Action	Evaluation																
No Action	Current problem remains																
Purchase tanker truck for water	Slow emergency service response times.																
Develop contract with neighboring towns for fire response	Too slow of response times, towns may be unable																



## Action 2025-GreenTwp-03. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management										
<b>Supporting Agencies:</b>	Public Works, Township Administration										
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire										
<b>Description of the Problem:</b>	The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.										
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.										
<b>Estimated Cost:</b>	Staff time										
<b>Potential Funding Sources:</b>	Municipal budget										
<b>Implementation Timeline:</b>	Within 5 years										
<b>Goals Met:</b>	5										
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.										
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable										
<b>Impact on Future Development:</b>	Not Applicable										
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable										
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.										
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.										
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)										
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)										
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low										
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th><th>Evaluation</th></tr> </thead> <tbody> <tr> <td>No Action</td><td>Current problem remains</td></tr> <tr> <td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr> <tr> <td>Rely on state cleanup</td><td>These services may or may not be available</td></tr> </tbody> </table>			Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available
Action	Evaluation										
No Action	Current problem remains										
Rely on federal cleanup	These services may or may not be available										
Rely on state cleanup	These services may or may not be available										



## Action 2025-GreenTwp-04. Hunts School Road Drainage Improvements

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Hunts School Road has an undersized drainage pipe that contributes to flooding. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.																
<b>Description of the Solution:</b>	The Township Engineer will complete an engineering survey of drainage systems on Hunts School Road that are below capacity and contribute to flooding to determine strategies which would provide relief from floods. The Township Public Works will complete the necessary work.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	HMGP, BRIC, Township Budget																
<b>Implementation Timeline:</b>	3 years																
<b>Goals Met:</b>	1, 2																
<b>Benefits:</b>	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.																
<b>Impact on Socially Vulnerable Populations:</b>	Areas that were previously vulnerable to frequency or severe flooding events will be less likely to be impacted by flooding events.																
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.																
<b>Impact on Critical Facilities/Lifelines:</b>	Transportation routes are more likely to remain open, which allows evacuation routes to remain intact. Furthermore, Access to health and medical facilities will be maintained, both for healthcare workers and the population who requires treatment for injuries and illness.																
<b>Impact on Capabilities:</b>	Identifying the culverts that are at greatest risk of damage or failure can allow for resource staging to take place where the need is greatest ahead of a flood event.																
<b>Climate Change Considerations:</b>	Climate change is likely to result in more frequent and severe rainfall events. This action upsizes drainage systems to meet changing stormwater needs as the result of climate change.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Remove roadway</td><td>Roadway cannot be removed</td></tr><tr><td>Raingardens</td><td>Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.</td></tr></table>			Action	Evaluation	No Action	Current problem remains	Remove roadway	Roadway cannot be removed	Raingardens	Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.						
Action	Evaluation																
No Action	Current problem remains																
Remove roadway	Roadway cannot be removed																
Raingardens	Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.																



## Action 2025-GreenTwp-05. Emergency Generators at Critical Facilities

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Post Office, Emergency Management, Township Administration		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure         <input checked="" type="checkbox"/> Hurricane       </div> <div> <input checked="" type="checkbox"/> Disease Outbreak         <input type="checkbox"/> Infestation       </div> <div> <input checked="" type="checkbox"/> Drought         <input checked="" type="checkbox"/> Nor'easter       </div> <div> <input checked="" type="checkbox"/> Earthquake         <input checked="" type="checkbox"/> Severe Weather       </div> <div> <input checked="" type="checkbox"/> Flood         <input checked="" type="checkbox"/> Severe Winter Weather       </div> <div> <input checked="" type="checkbox"/> Geological Hazards         <input checked="" type="checkbox"/> Wildfire       </div> <div> <input checked="" type="checkbox"/> Hazardous Materials       </div>		
<b>Description of the Problem:</b>	Backup power sources are necessary to maintain critical services for critical facilities. The Tranquility Post Office (28 Kennedy Road) and the Greendell Post Office (243 Kennedy Road) lack backup power to maintain operations in the event of an emergency. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.		
<b>Description of the Solution:</b>	The Township's Engineer will assess the needs of the buildings to determine the capacity required for the generator. Following this determination, the generator and all necessary components and accessories will be installed at both the Tranquility Post Office (28 Kennedy Road) and the Greendell Post Office (243 Kennedy Road). The employees at post office will be responsible will perform, or hire a contractor to perform, the needed maintenance for these generators.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5, 6, 7		
<b>Benefits:</b>	This action ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Socially Vulnerable Populations:</b>	Protection of this critical facility will ensure socially vulnerable populations receive necessary items through mail carriers, including medications.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
<b>Mitigation Category</b>	<div> <input type="checkbox"/> Local Plans and Regulations (LPR)         <input type="checkbox"/> Natural Systems Protection (NSP)       </div> <div> <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)         <input type="checkbox"/> Education and Awareness Programs (EAP)       </div>		
<b>CRS Category</b>	<div> <input type="checkbox"/> Preventative Measures (PR)         <input type="checkbox"/> Natural Resource Protection (NR)       </div> <div> <input type="checkbox"/> Property Protection (PP)         <input type="checkbox"/> Structural Flood Control Projects (SP)       </div> <div> <input type="checkbox"/> Public Information (PI)         <input checked="" type="checkbox"/> Emergency Services (ES)       </div>		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	





## Action 2025-GreenTwp-06. Drainage System Mapping

<b>Lead Agency:</b>	Public Works																
<b>Supporting Agencies:</b>	Floodplain Administrator, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	No mapping exists of the drainage system in Green Township to help identify and solve problem areas. Information on drainage systems can be used to optimize stormwater management efforts and monitor potential overflows during floods and severe storm events. Not having this information readily available presents an obstacle to comprehensive stormwater management.																
<b>Description of the Solution:</b>	The Township will contract with an engineering firm to create detailed mapping of all drainage infrastructure.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	BRIC, HMGP, Township Budget																
<b>Implementation Timeline:</b>	Within 3 years																
<b>Goals Met:</b>	1, 2																
<b>Benefits:</b>	Information on drainage systems can be used to optimize stormwater management efforts and monitor potential overflows during floods and severe storm events.																
<b>Impact on Socially Vulnerable Populations:</b>	The mapping of drainage systems can assist in locating where socially vulnerable populations are in relation to this infrastructure. Should the drainage infrastructure become damaged in any way near these populations, first responders can swiftly notify these populations and get them out of harms way.																
<b>Impact on Future Development:</b>	Mapping the drainage systems in the Township can assist in determining where future development will be supported by this infrastructure and reduce any potential impacts from hazards, such as flooding and heavy rains from severe storms.																
<b>Impact on Critical Facilities/Lifelines:</b>	Drainage and stormwater infrastructure will be properly identified and mapped, permitting officials to quickly locate and resolve any damages to the systems. Damages to stormwater infrastructure can cause flooded roadways, preventing first responders from reaching emergencies, restrict regular travel, and prevent individuals from reaching evacuation routes.																
<b>Impact on Capabilities:</b>	This action will enhance the Township's capabilities for stormwater management.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rain events can produce excessive waters which can inundate drainage systems, potentially damaging the infrastructure and causing flooding conditions.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Request assistance from local colleges and universities in developing mapping</td><td>May not be financially feasible or sustainable</td></tr><tr><td>Create a physical map noting the location of these systems instead of a digitized version</td><td>The physical map may get lost or damaged more easily</td></tr></table>	Action	Evaluation	No action	Current problem remains	Request assistance from local colleges and universities in developing mapping	May not be financially feasible or sustainable	Create a physical map noting the location of these systems instead of a digitized version	The physical map may get lost or damaged more easily								
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No action	Current problem remains																
Request assistance from local colleges and universities in developing mapping	May not be financially feasible or sustainable																
Create a physical map noting the location of these systems instead of a digitized version	The physical map may get lost or damaged more easily																



## Action 2025-GreenTwp-07. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Construction Official, Building Department, Township Administration, NFIP State Coordinator, FEMA Regional Office																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	<p>A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Township's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.</p>																
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.</p>																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5,7																
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>																
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>																
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>																
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>																
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>																
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem exists</td></tr></table>	Action	Evaluation	No Action	Current problem exists												
Action	Evaluation																
No Action	Current problem exists																



	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage



## Action 2025-GreenTwp-08. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials         </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire         </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP)         </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP)         </div>		
<b>CRS Category</b>	<div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI)         </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES)         </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-GreenTwp-09. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Planning Board, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.																
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.																
<b>Estimated Cost:</b>	Staff time, Low																
<b>Potential Funding Sources:</b>	Township Budget																
<b>Implementation Timeline:</b>	Within 2 years																
<b>Goals Met:</b>	1, 2, 5																
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.																
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.																
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.																
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.																
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Only share opportunities when notified of grant funding</td><td>May not be enough time to garner interest or write application</td></tr><tr><td>Wait for information from the State on flood-damaged properties</td><td>May be a delay in notice</td></tr></table>	Action	Evaluation	No action	Current problem remains	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	Wait for information from the State on flood-damaged properties	May be a delay in notice								
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No action	Current problem remains																
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application																
Wait for information from the State on flood-damaged properties	May be a delay in notice																





## Action 2025-GreenTwp-10. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM		
<b>Supporting Agencies:</b>	NJDEP, Dam Owners		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Tranquility Church Dam and Tranquility Mill Dam, both critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has a high-hazard potential dam, the Lake Tranquility Dam, within its jurisdiction. These structures have the potential to impact persons and structures within inundation areas.		
<b>Description of the Solution:</b>	The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5, 7		
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.		
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.		
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Township will be unaware of any safety concerns for the dam or its condition
	Utilize information from NJDEP		Owners may not be required to submit a safety plan to the State
	Utilize information from the National Inventory of Dams		Not all dams are listed on the inventory



## Action 2025-GreenTwp-11. Certified Floodplain Manager Training

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Engineering, Building Department, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.																
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Township Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5																
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.																
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.																
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.																
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.																
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input checked="" type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Hire outside contractors for floodplain administration</td><td>Costly</td></tr><tr><td>Establish shared service agreements for floodplain administration from neighboring municipalities</td><td>Neighboring municipalities are unlikely to have the staff capacity to take on this role</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Hire outside contractors for floodplain administration	Costly	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role								
Action	Evaluation																
No Action	Current problem remains																
Hire outside contractors for floodplain administration	Costly																
Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role																



## Action 2025-GreenTwp-12. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Township has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Township events, the Township newsletters, social media, the Township website, and having the materials on display for the public at Township libraries and offices. Consider hiring staff to work directly with socially vulnerable populations. Work with Sussex County to identify and create a list of socially vulnerable populations utilizing Register Ready.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Township. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township will become educated on hazards risks. The Township will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program. It would also assist the Township in identifying where socially vulnerable populations are located in the jurisdiction.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	



	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
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## Action 2025-GreenTwp-13. Lake Tranquility Dam Rehab

<b>Lead Agency:</b>	Municipal Engineer																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Lake Tranquility Dam is a Class I High Hazard Dam that is located on Lake Tranquility. The dam is owned by the Township. Failure of the dam could result in inundation of densely populated areas, critical facilities and community lifelines, and several local roadways including Scenic Drive, Shore Road, Meadow Lane, Pondview Circle, and Mallard Drive. Although the dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will complete an engineering study of Lake Tranquility Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Lake Tranquility as an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Tranquility as an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Tranquility as an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## 11. BOROUGH OF HAMBURG

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Borough of Hamburg with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Hamburg, describes who participated in the planning process, assesses Hamburg's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 11.1 HAZARD MITIGATION PLANNING TEAM

The Borough of Hamburg identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Borough departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 11-1 summarizes Borough officials who participated in the development of the annex and in what capacity. Additional documentation of the Borough's planning activities through Planning Partnership meetings is included in Volume I.

Table 11-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Keith Sukennikoff, OEM Coordinator Address: 16 Wallkill Avenue, Hamburg, NJ 07419 Phone Number: 973-670-0105 Email: oem@hamburgnj.org	Name/Title: John Rushke, Engineer Address: 16 Wallkill Avenue, Hamburg, NJ 07419 Phone Number: 908-238-5000 Email: John.rushke@mottmac.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Joseph Butto, Construction Official Address: 149 Wheatworth Road Suite A Hardyston NJ 07419 Phone Number: (973) 823-7020 Email: jbutto@hardyston.com	
<b>Additional Contributors</b>	
Name/Title: Keith Sukennikoff, OEM Coordinator Method of Participation: Planning Partnership KO Meeting, Refresher Meeting (September 27, 2023), Planning Partnership Risk Assessment Meeting. Provided draft review and sign-off on final draft.	
Name/Title: John Rushke, Engineer Method of Participation: Provided draft review and sign-off on final draft	
Name/Title: Joseph Butto, Construction Official Method of Participation: Provided building permit information. Provided draft review and sign-off on final draft.	
Name/Title: John Haig, Elected Official Method of Participation: Provided draft review and sign-off on final draft	
Name/Title: Alec Yanish, Public Works/Highway Manager Method of Participation: Provided draft review and sign-off on final draft	
Name/Title: Beth Martin, Deputy Municipal Clerk Method of Participation: Provided draft review and sign-off on final draft	



Primary Point of Contact

Alternate Point of Contact

Name/Title: Wendy Brick, Land Use Board  
Method of Participation: Planning Partnership KO Meeting,

## 11.2 COMMUNITY PROFILE

The Borough of Hamburg is located in northern Sussex County. It is bordered to the north, east and west by the Township of Hardyston and to the south by the Borough of Franklin. The Borough covers an area of approximately 1.2 square miles. A tributary of the Walkill River flows through the northern section of the Borough and along the Walkill River forms the western border between the Borough and Township of Hardyston. Hamburg Creek is located in the southern end of the Borough. According to the U.S. Census, the 2020 population for Hamburg was 3,266, a 0.3 percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 2.2-percent of the population is 5 years of age or younger, 1.8-percent is 65 years of age or older, 17.2-percent is non-English speaking, 2.4-percent is below the poverty threshold, and 1.5-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Borough of Hamburg, 38-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 11.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Hamburg performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration.



Development of an updated mitigation strategy provided an opportunity for Hamburg to identify opportunities for integrating mitigation concepts into ongoing Borough procedures.

### 11.3.1 Planning and Regulatory Capability and Integration

Table 11-2 summarizes the planning and regulatory tools that are available to Hamburg.

Table 11-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019; State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)	State & Local	Construction Official
How has or will this be integrated with the HMP and how does this reduce risk? <i>The building code provides guidance on how to design, build, and operate buildings. Modern building codes lead to major reductions in property losses from natural disasters.</i>				
<b>Zoning/Land Use Code</b>	Yes	State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49; Chapter 215	Local	Zoning Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan.</i>				
<b>Subdivision Code</b>	Yes	P.L.1975, c.291 (C.40:55D-47); 40:55D-37; Chapter 186.	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.</i>				
<b>Site Plan Code</b>	Yes	Municipal Land Use Law; NJ Statute 40:27-6.; Chapter 171.	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.*

<b>Stormwater Management Code</b>	Yes	Title 7 of the NJ Administrative Code, N.J.A.C. 7:8; Chapter 182	Local	Land Use Board
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How has or will this be integrated with the HMP and how does this reduce risk?

The purpose of the Stormwater Management Code for the State of New Jersey is to minimize pollution caused by stormwater and restore, enhance, and maintain the integrity of waters throughout the State.

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.

- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?

Not all provisions of this law have become effective at the time of the writing of this plan.

<b>Growth Management</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 215-20 of the Hamburg Code	State	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

Regulates development in critical areas. According to the code, all open water, streams, ponds, detention basins, wetlands as defined on the Army Corps of Engineers' wetlands survey and floodplains shall be excluded from the land area used by an applicant for development in the calculation of permitted densities for construction.

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 215-20, August 1, 2011.	Local	Construction Official
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How has or will this be integrated with the HMP and how does this reduce risk?

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- A. To protect human life and health;
- B. To minimize expenditure of public money for costly flood control projects;
- C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. To minimize prolonged business interruptions;
- E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- F. To help maintain a stable tax base by providing for the alternate use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. To ensure that potential buyers are notified that property is in an area of special flood hazard; and
- H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Emergency Management Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Other: Municipal Separate Storm Sewer System (MS4)</b>	Yes	Chapter 182, April 5, 2021	Local	DPW

How has or will this be integrated with the HMP and how does this reduce risk?

It is the purpose of Chapter 182 to establish the minimum stormwater management requirements for major development within the Borough.

#### PLANNING DOCUMENTS

<b>General/Comprehensive Plan</b>	Yes	2018 Revised NJ Statute 40:27-2; adopted in 1997 and a re-examination report was completed in November of 2006.	Local	Land Use Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*The county planning board shall make and adopt a master plan for the physical development of the county. The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county. The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan and to advise the board of chosen commissioners with respect to the formulation of development programs and budgets for capital expenditures. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28 provides the required components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity.*

<b>Capital Improvement Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Disaster Debris Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Stormwater Management Plan</b>	Yes	Stormwater Management rules (N.J.A.C. 7:8); Flood Hazard Area Control Act Rules, N.J.A.C. 7:13. This plan was adopted on April 20, 2005; Chapter 182	Local	Mayor and Council
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How has or will this be integrated with the HMP and how does this reduce risk?

*These rules set forth the required components of regional and municipal stormwater management plans and establish the stormwater management design and performance standards for new (proposed) development. The design and performance standards for new development include groundwater recharge, runoff quantity controls, and runoff quality controls. The rules emphasize, as a primary consideration, the use of nonstructural stormwater management techniques including minimizing disturbance, minimizing impervious surfaces, minimizing the use of stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<i>runoff quantity control, stormwater runoff quality control, and the prohibition of major development to be located within or to discharge runoff from the major development into a 300-foot riparian zone without prior authorization from the Department under the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13.</i>				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Agriculture Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	State Emergency Operations Plan. L.1989, c.222, s.19.; adopted in 2010, updated in March 2019, and approved by the New Jersey State Police.	Local	OEM
How has or will this be integrated with the HMP and how does this reduce risk? <i>Each county and municipality in the State shall prepare a written Emergency Operations Plan with all appropriate annexes necessary to implement the plan. Each Emergency Operations Plan shall be adopted no later than one year after the State Emergency Planning Guidelines have been adopted by the State Office of Emergency Management and shall be evaluated at such subsequent scheduled review of the State Emergency Operations Plan. L. 1989, c.222, s.19.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 11.3.2 Development and Permitting Capability

Table 11-3 summarizes the capabilities of Hamburg to oversee and track development.



Table 11-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	The Construction Department is responsible for issuing development permits.
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain development permits
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	-
Describe the level of buildout in your jurisdiction.	N/A	There is no available space for buildout within the Borough.

### 11.3.3 Administrative and Technical Capability

Table 11-4 summarizes potential staff and personnel resources available to Hamburg and their current responsibilities that contribute to hazard mitigation.

Table 11-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Borough of Hamburg Land Use Board is authorized to adopt bylaws governing its procedural operation. It oversees the Borough's Master Plan and performs in accordance with the Municipal Land Use Law N.J.S.A 40:55-D et seq.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	<p>The Environmental Commission consists of seven members.</p> <p>The Commission is established for the protection, development, or use of natural resources, including water resources, located within the territorial limits of the Borough. The Commission shall have power to conduct research into the use and possible use of the open land areas of the Borough and may coordinate the activities of unofficial bodies organized for similar purposes, and may advertise, prepare, print and distribute books, maps, charts, plans and pamphlets which in its judgment it deems necessary for its purposes. It shall keep an index of all open areas, publicly or privately owned; including open marshlands, swamps, and other wetlands, to obtain information on the proper use of such areas and may recommend to the Planning Board,</p>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		<p>plans and programs for inclusion in the Master Plan and the development and use of such areas.</p> <p>The Environmental Commission may, subject to the approval of the Mayor and Council, acquire property, both real and personal, in the name of the Borough by gift, purchase, grant, bequest, devise or lease for any of its purposes and shall administer the same for such purposes subject to the terms of the conveyance or gift. Such an acquisition may be to acquire the fee of any lesser interest, development right, easement (including conservation easement), covenant or other contractual right (including a conveyance on conditions or with limitations or reversions), as may be necessary to acquire, maintain, improve, protect, limit the future use of or otherwise conserve and properly utilize open spaces and other land and water areas in the Borough.</p>
Open Space Board/Committee	Yes	<p>The Borough of Hamburg Land Use Board is authorized to adopt bylaws governing its procedural operation. It oversees the Borough's Master Plan and performs in accordance with the Municipal Land Use Law N.J.S.A 40:55-D et seq.,</p> <p>Recreation Commission is responsible for the development and supervision of a broad program of quality educational and recreational activities for residents of all ages.</p>
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	<p>The Road Department is responsible for repair and maintenance of public Borough roadways. Drainage maintenance and repair as well as snow removal are major functions of this department. Other responsibilities include storm related debris and brush removal and maintenance of the Hamburg Recreational Fields on Gingerbread Castle Road.</p>
Construction/Building/Code Enforcement Department	Yes	<p>Hamburg Borough has entered a shared service agreement with Hardyston Township for the Construction/Building Department. The Building Department is responsible for enforcement of the NJ Uniform Construction Code, which includes building, plumbing, energy, electrical, elevator and mechanical codes. Building permits and certificates of occupancy are issued through this department.</p>
Emergency Management/Public Safety Department	Yes	<p>The Office of Emergency Management, in conjunction with local government, is responsible for coordinating the necessary actions to protect lives and property during times of disaster and emergency. Municipalities must also appoint an Emergency Management Council (known as Local Emergency Planning Council-(LEPC). Emergency Management programs on all levels of our government include not only the public safety units but volunteer and private entities such as the American Red Cross, Salvation Army, and many fraternal and service organizations.</p>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	Mayor and Council
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Mayor and Council
Engineers or professionals trained in building or infrastructure construction practices	Yes	Mayor and Council
Planners or engineers with an understanding of natural hazards	Yes	Mayor and Council
Staff with expertise or training in benefit/cost analysis	Yes	Engineer
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Mayor and Council
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	Yes	Mayor and Council
Surveyors	Yes	Mayor and Council
Emergency manager	Yes	Mayor and Council
Grant writers	Yes	Jeff Stevens
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 11.3.4 Fiscal Capability

Table 11-5 summarizes financial resources available to Hamburg.

Table 11-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes



Financial Resources	Accessible or Eligible to Use? (Yes/No)
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 11.3.5 Education and Outreach Capability

Table 11-6 summarizes the education and outreach resources available to Hamburg.

Table 11-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	No	-
Personnel skilled or trained in website development	Yes	Contracted
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	County system
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

### 11.3.6 Community Classifications

Table 11-7 summarizes classifications for community programs available to Hamburg.

Table 11-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-





Program	Participating? (Yes/No)	Classification	Date Classified
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 11.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 11-8 summarizes the adaptive capacity for each identified hazard of concern and the Borough’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 11-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate



## 11.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 11-1 is responsible for maintaining this information.

### 11.4.1 NFIP Statistics

Table 11-9 summarizes the NFIP policy and claim statistics for Hamburg.

Table 11-9. Hamburg NFIP Summary of Policy and Claim Statistics

# Policies	2
# Claims (Losses)	0
Total Loss Payments	\$0.00
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

*Source: FEMA Region II 2024*

### 11.4.2 Flood Vulnerability Summary

Table 11-10 provides a summary of the NFIP program in Hamburg.

Table 11-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Borough occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No, the Borough does not maintain a list at this time.
Do you maintain a list of property owners interested in flood mitigation?	No, the Borough does not maintain a list at this time.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown



NFIP Topic	Comments
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	The Borough follows FEMA guidelines to make these determinations.
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	No properties were declared for recent flood events at this time.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	No properties have been elevated/acquired at this time.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes, the flood hazard maps address the flood risk within the Borough.
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	The Construction Official and Borough Engineer is responsible for floodplain management responsibilities.
Are any certified floodplain managers on staff in your jurisdiction?	No, not at this time.
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, the Borough has access to resources for future flooding concerns and projections.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would consider attending continuing education and/or certification training on floodplain management if offered.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review and engineering capabilities
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	The Borough follows FEMA guidelines to make these determinations.
What are the barriers to running an effective NFIP program in the community, if any?	The lack of training and qualified personnel to cover all respective areas of the program is the main barrier for the Borough.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No, the Borough does not have any compliance violations at this time.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	December 7, 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	LL 215-20
What is the date that your flood damage prevention ordinance was last amended?	August 1, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements but needs to be updated.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Yes, site plan review supports floodplain management in meeting the NFIP requirements.



NFIP Topic	Comments
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No, not at this time.

## 11.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 11-11 through Table 11-13.

Table 11-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	4	0	1	5
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	9	0	0	9
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	8	0	0	8
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	2	0	2	4
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	3	0	1	4
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 11-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There has been no recent major development and infrastructure between 2019 to present.					

\* Only location-specific hazard zones or vulnerabilities identified.



Table 11-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Apartment Complex	Residential	40	100 new jersey 23 Hamburg, NJ 07419	None	Knocking down old property to build new structure.

## 11.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Hamburg's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 11.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Borough are shown in Figure 11-1 through Figure 11-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Hamburg has significant exposure. The maps show the location of potential new development, where available.



Figure 11-1. Hamburg Flood and Sinkhole Hazard Area Extent and Location Map

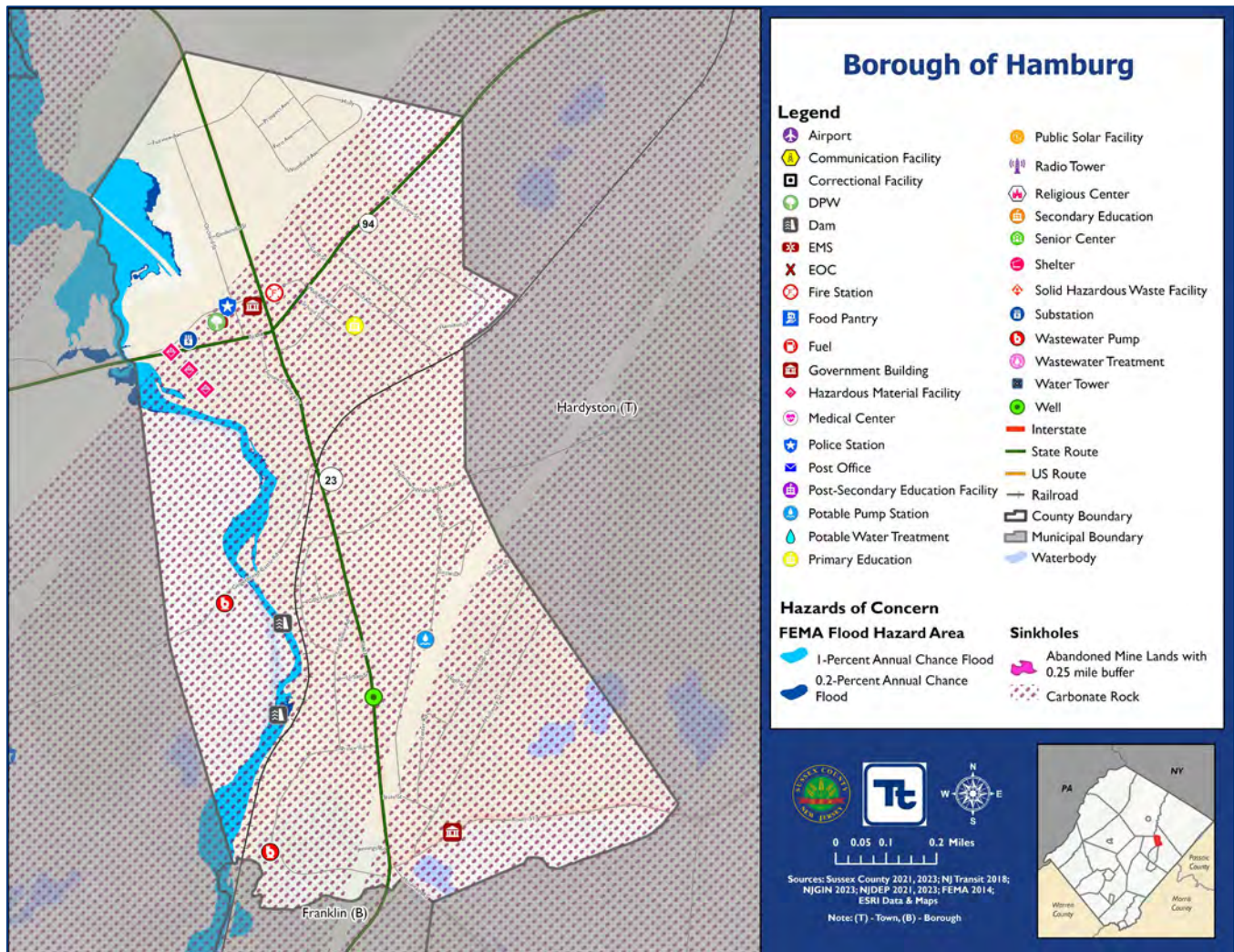




Figure 11-2. Hamburg Hazardous Materials and Wildfire Hazard Area Extent and Location Map

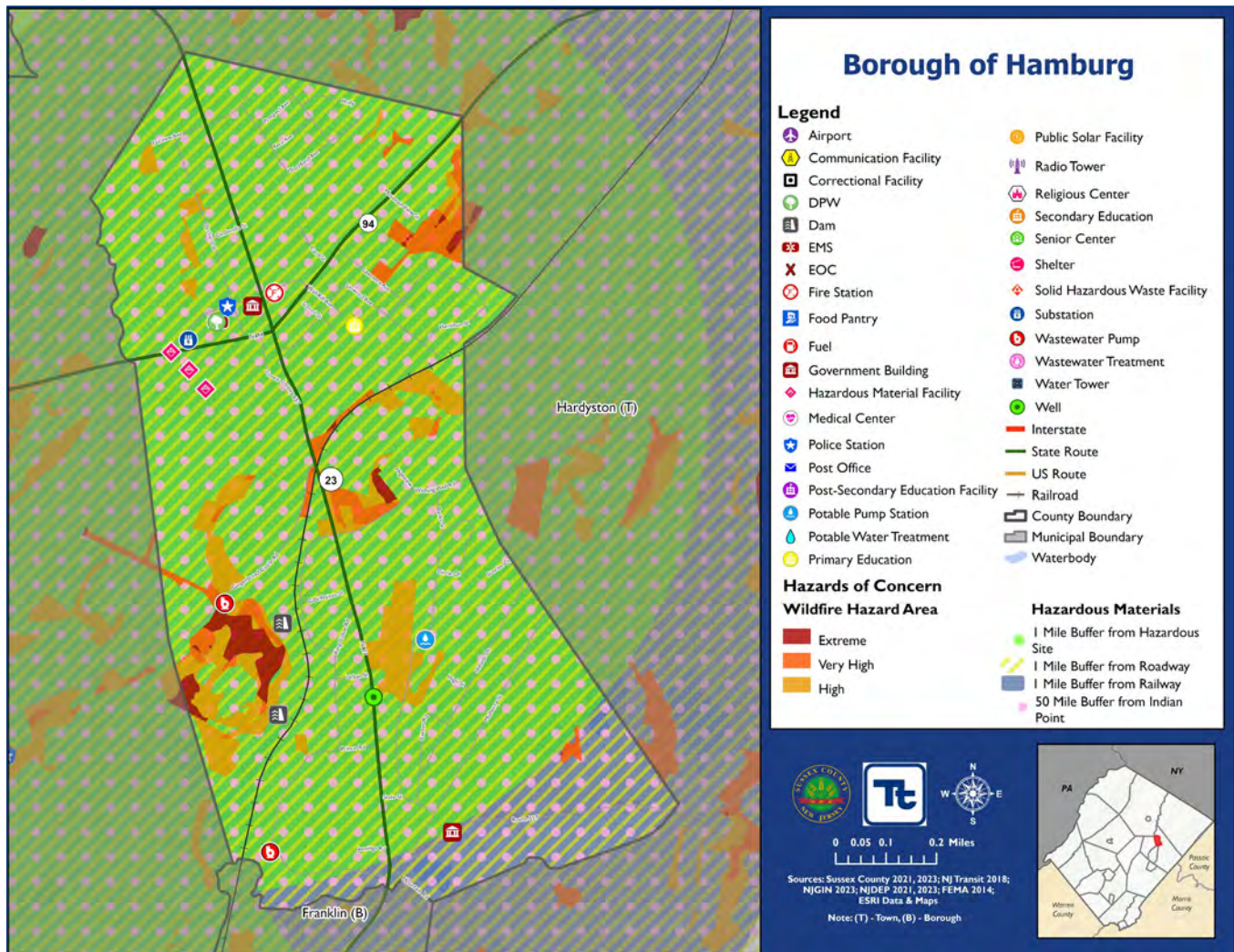
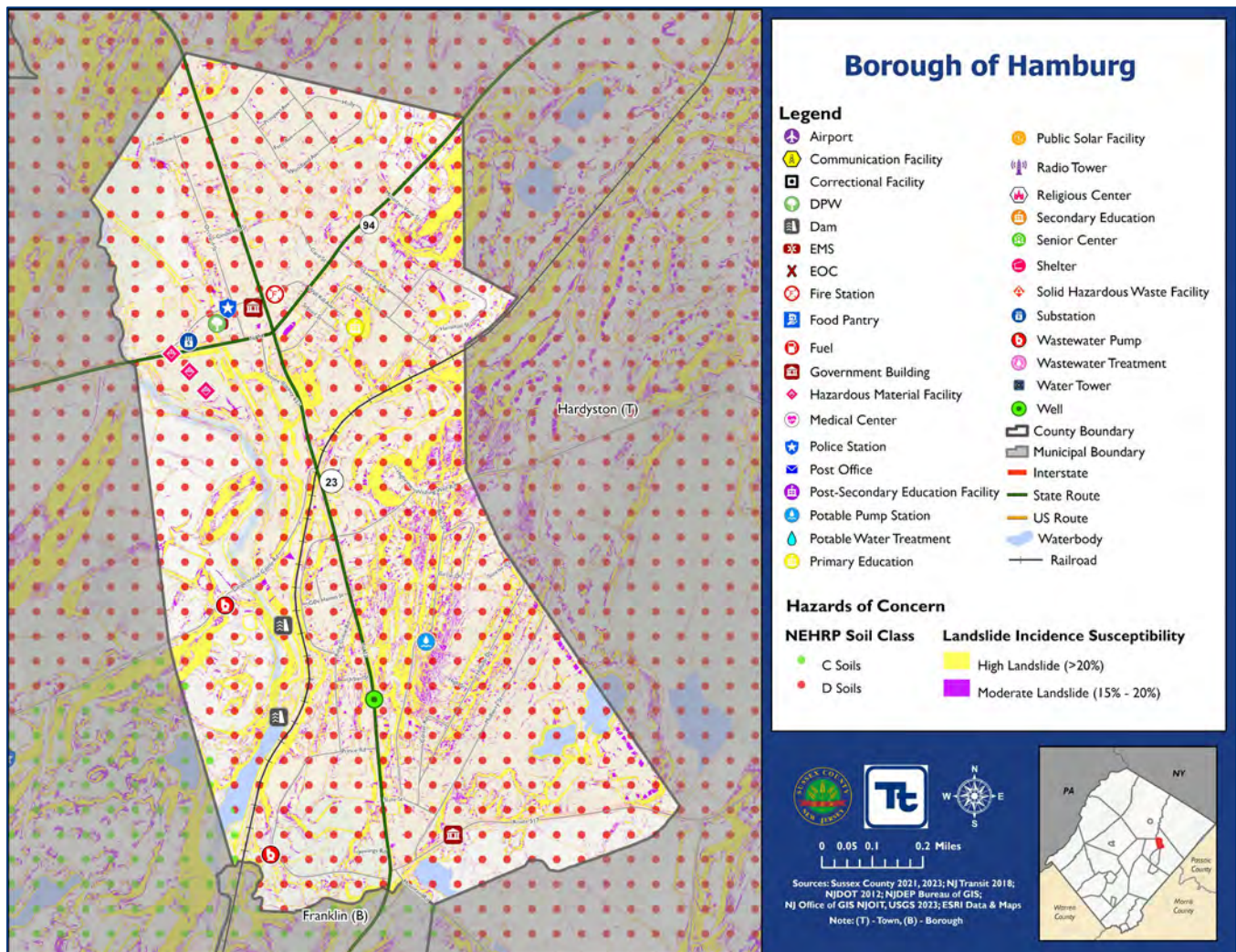




Figure 11-3. Hamburg Landslide and NEHRP Soils Hazard Area Extent and Location Map





## 11.6.2 Hazard Event History

The history of natural and non-natural hazard events in Hamburg is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 11-14 provides details on loss and damage in Hamburg during hazard events since the last hazard mitigation plan update.

Table 11-14. Hazard Event History in Hamburg

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hamburg
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	Yes, one FEMA still open.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Yes, open FEMA still in progress. Culvert, Roadway, and Brook Channel all damaged within the Borough.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Borough experienced icy roads and snowfall.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Borough experienced power outages and downed trees.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 11.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Hamburg .



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Hamburg reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Borough indicated the following hazard rankings were accurate.

Table 11-15 shows Hamburg's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 11-15. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Low
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 11-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 11-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Wheatsworth Mill No. 1 Dam	Dam	Yes	Yes	2025-HamburgB-01	-



Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Wheatsworth Mill No. 2 Dam	Dam	Yes	Yes	2025-HamburgB-01	-

Source: Sussex County 2021, 2023; NJGIN 2023

### 11.6.4 Identified Issues

After review of Hamburg's hazard event history, hazard rankings, hazard location, and current capabilities, Hamburg identified the following vulnerabilities within the community:

- The Wheatsworth Mill No. 1 Dam and Wheatsworth Mill No. 2 Dam, both critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. These structures have the potential to impact those living nearby. The Borough has noted that the dams need to be brought into compliance with NJDEP requirements. Currently, there are no Emergency Action Plans in place.
- Backup power sources are necessary to maintain critical services for critical facilities. The Hamburg Elementary School (30 Linwood Avenue) and facilities require backup power sources. Hamburg Elementary School serves as a sheltering location.
- Limekiln Road and North Governor Haines Street have drainage problems, potentially due to undersized culverts, which result in periodic road flooding. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- The roof of the Hamburg Elementary School, a critical facility located at 30 Linwood Avenue, cannot handle the snow load that accumulates during severe snowstorms. This becomes an issue during severe winter weather and high winds associated with severe weather, hurricane, and nor'easter events, as individuals inside the buildings may become impacted should damage to the roof be significant.
- There is a lack of knowledge around hazard mitigation in the region and residents are underprepared for potential natural hazard events. The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- The municipality does not have an emergency vehicle to support highway and issues related to road closures and issues related to severe weather. Additional vehicles will increase capacity and overall response. Emergency vehicles can assist in placing barricades at flooded roads and roads impacted by fallen trees.
- The municipality struggles to keep up with debris cleanup operation immediately after hazard events, as it does not have the proper equipment to conduct these operations. This could cause significant issues around subsequent flooding due to clogging of roadways and waterbodies.
- The Borough has not developed a comprehensive strategy to address debris clearing during and after a hazard event. The Borough lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.





- The Borough has previously not been successful in implementing the municipal fire plan proposed actions. Implementing these actions can reduce the risk to the wildfire hazard, protecting life, property, and the environment.
- The municipality has previously not been able to successfully implement hazard mitigation actions in coordination with the local school districts. Local school districts have facilities which may be exposed to various hazards, including flooding, steep slopes, and wildfire. Assisting school districts identify risks to hazards and potential mitigation strategies can reduce future impacts to the facilities and individuals who may be inside them.
- The municipality has previously had trouble around stormwater infrastructure maintenance capabilities. The municipality would like to increase maintenance capabilities of catch basins and stormwater facilities is critical especially before and after large storm events to reduce the likelihood of flooding.
- The Sewer Sanitary Facility, a critical facility located at 57 Gingerbread Castle Rd, has been having issues around building cracking which has led to the threat of potential disrupted operation of the critical service. It is suspected these external deformities were formed by impacts from natural hazards, including heavy rains in severe storms. The loss of this critical facility can impact the services it provided to the Borough.
- In previous years, the municipality has experienced accidents around tree falling and disrupting the utility lines, subsequently causing power outages. The Borough is now on the power company's tree trimming program which is implemented every three years; however, this maintenance is not frequent enough to ensure vegetation is properly trimmed. Private homeowners must ensure trees on private property are not threatening power availability/interruption.
- Bridges in the Borough are aging and may not be up to current code. The status of the Borough's bridges and causeway in relation to ability to withstand hazard events is unknown. Failure of bridges or causeways could result in loss to life and limitations to emergency access.
- Debris and sediment/silt buildup occurs within the streams and rivers in the Borough, occasionally blocking bridges openings. Debris build-up in waterways can contribute to the likelihood of flooding, increasing the risk of damages to surrounding infrastructure, structures, and populations.
- The location of all catch basins and stormwater facilities, both private and public, need to be identified, mapped, and located for planning and maintenance. Information on drainage systems can be used to optimize stormwater management efforts and monitor potential overflows during floods and severe storm events. Not having this information readily available presents an obstacle to comprehensive stormwater management.
- The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Borough has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Borough and potentially reduce the number of emergency calls during hazardous events.
- The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.





- The Borough does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.

\* This issue was identified as a specific area of concern based on resident response to the Sussex County Hazard Mitigation Citizen survey.

## 11.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 11.7.1 Past Mitigation Action Status

Table 11-17 indicates progress on the Borough's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 11.7.2 Additional Mitigation Efforts

Hamburg did not identify any additional mitigation efforts completed since the last HMP.



Table 11-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Hamburg-001	Generator Installation	Flood, Severe Winter Weather, Severe Weather	OEM Coordinator	<b>Problem:</b> The Hamburg Elementary School does not have a backup generator to power the facility during a power outage. Because the facility is used as a shelter for the municipality, it is critical to install a generator to power the facility to be used during hazard events.  <b>Solution:</b> Install 3 Phase backup generator for shelter at Hamburg Elementary School located on Linwood Avenue. The Borough Engineer and the school maintenance crew shall work together to purchase and install the generator.	1. No Progress 2. Inadequate funding at this time.	1. Include in update 2. Merge with 2021-Hamburg-007 3. Not applicable
2021-Hamburg-002	Roof Upgrade	Severe Winter Weather	School Administrator, Municipal Engineer	<b>Problem:</b> The roof of the Hamburg Elementary School cannot handle the snow load that accumulates during severe snowstorms.  <b>Solution:</b> Retrofit roof to meet current snow load standards on Hamburg Elementary School located on Linwood Avenue.	1. No Progress 2. Inadequate funding at this time.	1. Include in update 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Hamburg-003	Multi-Hazard Public Awareness Program	All Hazards	OEM Coordinator, SCDEM	<b>Problem:</b> There is a lack of knowledge around hazard mitigation in the region and residents are underprepared for potential natural hazard events.  <b>Solution:</b> Develop, implement, and facilitate a multi-hazard public awareness program. Provide information on all types of hazards, preparedness and mitigation measures via the Borough website and social media.	1. No Progress 2. Due to other priority projects, there has been no progress made.	1. Include in update 2. Not applicable 3. Not applicable
2021-Hamburg-004	Purchase Emergency vehicle	All Hazards	Borough OEM	<b>Problem:</b> The municipality does not have an emergency vehicle to support highway and issues related to road closures and issues related to severe weather. Additional vehicles will increase capacity and overall response.  <b>Solution:</b> The municipality shall purchase a multi-purpose emergency vehicle to support highways.	1. In Progress 2. Grant funds have been applied for by the Borough.	1. Include in update 2. The Borough has applied for grant funding to purchase a multi-purpose emergency vehicle to support highway operations and response. 3. Not applicable
2021-Hamburg-005	Purchase Bobcat Skid-Steer	Flood, Severe Weather	Borough DPW	<b>Problem:</b> The municipality struggles to keep up with debris cleanup operation immediately after storm events. This could cause significant issues around subsequent flooding due to clogging of roadways and waterbodies.	1. No Progress 2. Inadequate funding at this time.	1. Include in update 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<b>Solution:</b> Purchase Bobcat Ski-Steer to use during debris cleanup operations and post-hazard events.		
2021-Hamburg-06	Develop Disaster Debris Management Plan	All Hazards	Borough DPW	<b>Problem:</b> The Borough has not developed a comprehensive strategy to address debris clearing during and after a hazard event.  <b>Solution:</b> Create and maintain a plan for adequate road and debris cleaning capabilities within the Borough.	1. No Progress 2. Due to other priority projects, there has been no progress made.	1. Include in update 2. Not applicable 3. Not applicable
2021-Hamburg-007	Portable Generator	Hurricane, Nor'easter, Severe Winter Weather, Severe Weather	Municipal Engineer, OEM Coordinator	<b>Problem:</b> Not all critical facilities have backup power.  <b>Solution:</b> Purchase portable generators for critical facilities that can be used to power the bare essentials during a hazard event.	1. No Progress 2. Inadequate funding at this time.	1. Include in update 2. Merge with 2021-Hamburg-001, but change to back-up generator instead of portable. 3. Not applicable
2021-Hamburg-008	HMP Implementation	All Hazards	Planning	<b>Problem:</b> The municipality has previously not been successful in implementing hazard mitigation actions within the municipality.  <b>Solution:</b> Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan; consider including hazard identification, hazard zones risk assessment information, and hazard mitigation goals as identified in the HMP. Further, the	1. Ongoing Capability 2. This action is performed regularly when planning and regulatory documents are re-evaluated and/or updated.	1. Discontinue 2. Not applicable 3. This action is performed regularly when planning and regulatory documents are re-evaluated and/or updated.



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				findings and recommendations of the HMP will be considered during any future site plan review process.		
2021-Hamburg-009	Hazard Area Identification and Plan Implementation	All Hazards	Borough Administration	<b>Problem:</b> The municipality has previously not been successful in identifying potential hazard areas within the municipality.  <b>Solution:</b> During the Borough's rezoning procedures or update of the zoning ordinance, the Borough will recognize hazard areas as limits on changes to zoning within the municipality.	1. Ongoing Capability 2. This action is performed regularly when planning and regulatory documents are re-evaluated and/or updated.	1. Discontinue 2. Not applicable 3. This action is performed regularly when planning and regulatory documents are re-evaluated and/or updated.
2021-Hamburg-010	Fire Plan Implementation	All Hazards	OEM Coordinator	<b>Problem:</b> The municipality has previously not been successful in implementing the municipal fire plan proposed actions.  <b>Solution:</b> Prepare and enforce a fire plan for the Borough and recognize the existence of wildfire hazards and identify risk areas based on a vulnerability assessment.	1. No Progress 2. Due to other priority projects, there has been no progress made.	1. Include in update 2. Not applicable 3. Not applicable
2021-Hamburg-011	Local School Districts HMP Implementation	All Hazards	OEM Coordinator	<b>Problem:</b> The municipality has previously not been able to successfully implement hazard mitigation actions in coordination with the local school districts.  <b>Solution:</b> The Borough will work with local school districts and assist	1. No Progress 2. Due to other priority projects, there has been no progress made.	1. Include in update 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				with community service projects regarding hazards and mitigation.		
2021-Hamburg-012	Stormwater Maintenance Program	Flood, Severe Weather	Borough DPW and Engineer	<p><b>Problem:</b> The municipality has previously had trouble around stormwater infrastructure maintenance capabilities. The municipality would like to increase maintenance capabilities of catch basins and stormwater facilities is critical especially before and after large storm events.</p> <p><b>Solution:</b> The municipality can do this by developing a program that can be coordinated with other municipalities to facilitate the maintained of local stormwater infrastructure.</p>	1. No Progress 2. Due to other priority projects, there has been no progress made.	1. Include in update 2. Not applicable 3. Not applicable
2021-Hamburg-013	Reinforcements	Flood, Severe Weather	Borough Engineer	<p><b>Problem:</b> The Sewer Sanitary Facility has been having issues around building cracking which has led to the threat of potential disrupted operation of the critical service.</p> <p><b>Solution:</b> Perform a study to determine where sanitary sewer reinforcement is needed due to most imminent threats of failure or cracking.</p>	1. No Progress 2. Inadequate funding at this time.	1. Include in update 2. Not applicable 3. Not applicable





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Hamburg-014	Tree Maintenance	Hurricane, Nor'Easter, Severe Winter Weather, Severe Weather	Borough DPW	<p><b>Problem:</b> In previous years, the municipality has experienced accidents around tree falling and disrupting the utility lines, subsequently causing power outages. The Borough is now on the power company's tree trimming program which is implemented every three years.</p> <p><b>Solution:</b> Tree removal and maintenance in the vicinity of power lines will help minimize power outages during severe weather events. The municipality will then work with the County to develop strategy to conduct tree maintenance.</p>	<p>1. No Progress</p> <p>2. Due to other priority projects, there has been no progress made.</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>
2021-Hamburg-015	Hamburg Borough Building Code Update	All Hazards	Construction Code Official	<p><b>Problem:</b> Building Codes need to be periodically reviewed for updates to keep up with changing regulations and reduce hazard risks.</p> <p><b>Solution:</b> Perform periodical building code reviews and make updates as required.</p>	<p>1. Ongoing Capability</p> <p>2. This action is performed regularly when planning and regulatory documents are re-evaluated and/or updated.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. This action is performed regularly when planning and regulatory documents are re-evaluated and/or updated.</p>
2021-Hamburg-016	Evaluation of Bridges and Other River Structures	Flood, Severe Weather	Borough Administration, Engineer	<p><b>Problem:</b> Aged infrastructure</p> <p><b>Solution:</b> A comprehensive master plan should be developed for appropriate sizing of the bridge openings and setting road</p>	<p>1. No Progress</p> <p>2. Due to other priority projects, there has been no progress made.</p>	<p>1. Include in update</p> <p>2. Not applicable</p> <p>3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				elevations to provide maximum benefits as the bridges are eventually replaced over time.		
2021-Hamburg-017	Hazard Warning System	All Hazards	Borough Administration, Borough Engineer	<b>Problem:</b> Hazard warning systems need to be developed.  <b>Solution:</b> The hazard warning system resources available to the Borough will be reviewed and utilized.	1. Complete 2. The Borough utilizes the County's warning system.	1. Discontinue 2. Not applicable 3. The Borough utilizes the County's warning system.
2021-Hamburg-018	Stream Cleaning & Maintenance	Flood, Severe Winter Weather, Severe Weather	Borough Administration, Borough Engineer	<b>Problem:</b> The required removal of built-up debris and sediment/silt buildup within streams and rivers. Bridge openings must be maintained.  <b>Solution:</b> Removal of debris, sediment, and silt from the channel as well as bridge openings by volunteer groups and outside contractors when needed.	1. No Progress 2. Due to other priority projects, there has been no progress made.	1. Include in update 2. Not applicable 3. Not applicable
2021-Hamburg-019	GIS Mapping of Catch Basin & General Stormwater Facilities	Flood, Severe Weather	Borough Administration, Borough Engineer, DPW Supervisor	<b>Problem:</b> The location of all catch basins and stormwater facilities, both private and public, need to be identified, mapped, and located for planning and maintenance.  <b>Solution:</b> Create a GIS mapping system of catch basins, stormwater facilities, basins, culverts, and other drainage features and structures.	1. No Progress 2. Due to other priority projects, there has been no progress made.	1. Include in update 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Hamburg-020	Dam project	Dam Failure	Administration, Dam owners	<b>Problem:</b> There is no evidence of existing dams being in compliance with Dam Safety Requirements; No Emergency Action Plan for Dam failure.  <b>Solution:</b> The Borough will work with dam owners to gain copies of Emergency Action Plans or instruct them to develop Plan in conjunction with NJDEP.	1. No Progress 2. Due to other priority projects, there has been no progress made.	1. Include in update 2. Not applicable 3. Not applicable
2021-Hamburg-021	North Governor Haines Street Drainage	Flood, Severe Weather	Engineer, DPW	<b>Problem:</b> North Governor Haines Street experiences drainage issues.  <b>Solution:</b> The Borough will conduct a feasibility study for North Governor Haines Street drainage issues. If cost-effective measures are identified, the Borough will pursue grant funding and implement the selected actions.	1. No Progress 2. Inadequate funding at this time.	1. Include in update 2. Not applicable 3. Not applicable
2021-Hamburg-022	Limekiln Road Drainage Improvement Project	Flood, Severe Weather	Engineering	<b>Problem:</b> The existing culvert on Limekiln Road does not have adequate capacity, resulting in flooding on roadway and near the Pump Station.  <b>Solution:</b> The Borough Engineer will determine the necessary culvert and drainage channel improvements that are required to pass required capacity. The	1. No Progress 2. Inadequate funding at this time.	1. Include in update 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				Borough will then complete the identified improvements.		



### 11.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Hamburg participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Hamburg would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Borough priorities.

Table 11-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 11-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 11-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X			X	X		X			X
Disease Outbreak	X			X	X		X			X
Drought	X			X	X		X			X
Earthquake	X	X		X	X		X			X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X	X		X	X		X			X
Hazardous Materials	X			X	X		X			X
Hurricane	X	X	X	X	X		X		X	X
Infestation	X			X	X		X			
Nor'easter	X	X	X	X	X	X	X		X	X
Severe Weather	X	X	X	X	X		X		X	X
Severe Winter Weather	X	X	X	X	X	X	X		X	X
Wildfire	X			X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities





Table 11-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-HamburgB-01	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-HamburgB-02	Emergency Generators at Critical Facilities	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-HamburgB-03	Flood Prone Roadways	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-HamburgB-04	Snow Load Improvements	1	1	1	1	1	0	1	1	1	1	1	1	0	0	11	High
2025-HamburgB-05	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-HamburgB-06	Emergency Vehicle	1	1	1	1	1	0	0	1	1	1	1	1	1	0	11	High
2025-HamburgB-07	Debris Clean Up Equipment	1	1	1	1	1	0	0	1	1	1	1	1	1	0	11	High
2025-HamburgB-08	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-HamburgB-09	Municipal Fire Plan	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-HamburgB-10	Local School District Mitigation Involvement	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2025-HamburgB-11	Stormwater Maintenance Program	0	1	1	1	1	1	1	0	1	1	1	1	1	1	12	High
2025-HamburgB-12	Sewer Sanitary Facility Improvements	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-HamburgB-13	Tree Maintenance	0	1	1	1	1	1	1	1	1	1	0	1	0	0	10	Medium



Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-HamburgB-14	Bridge Mitigation	1	1	1	1	1	0	1	1	1	1	1	1	0	0	11	High
2025-HamburgB-15	Debris in Waterways	1	1	1	1	1	1	1	1	1	1	1	1	0	0	12	High
2025-HamburgB-16	Drainage System Mapping	0	1	1	1	1	1	1	0	1	1	1	1	1	1	12	High
2025-HamburgB-17	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-HamburgB-18	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-HamburgB-19	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-HamburgB-20	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-HamburgB-21	Certified Floodplain Manager Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



## Action 2025-HamburgB-01. Dam Owner Partnership

<b>Lead Agency:</b>	Borough OEM																
<b>Supporting Agencies:</b>	NJDEP, Dam Owners																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Wheatsworth Mill No. 1 Dam and Wheatsworth Mill No. 2 Dam, both critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. These structures have the potential to impact those living nearby. The Borough has noted that the dams need to be brought into compliance with NJDEP requirements. Currently, there are no Emergency Action Plans in place.																
<b>Description of the Solution:</b>	The Borough will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Borough OEM and shared with the County OEM.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5, 7																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Borough will be unaware of any safety concerns for the dam or its condition</td></tr><tr><td>Utilize information from NJDEP</td><td>Owners may not be required to submit a safety plan to the State</td></tr><tr><td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr></table>	Action	Evaluation	No Action	Borough will be unaware of any safety concerns for the dam or its condition	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory								
Action	Evaluation																
No Action	Borough will be unaware of any safety concerns for the dam or its condition																
Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State																
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory																



## Action 2025-HamburgB-02. Emergency Generators at Critical Facilities

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Hamburg Elementary School, Emergency Management, Borough Administration		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	Backup power sources are necessary to maintain critical services for critical facilities. The Hamburg Elementary School (30 Linwood Avenue) and facilities require backup power sources. Hamburg Elementary School serves as a sheltering location.		
<b>Description of the Solution:</b>	The Borough's Engineer will assess the needs of the buildings to determine the capacity required for the generator. Following this determination, the generator and all necessary components and accessories will be installed at the Hamburg Elementary School (100 Main St, Ogdensburg, NJ 07439) and facilities. The employees at either fire station will perform the needed maintenance for these generators.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5, 6, 7		
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	



## Action 2025-HamburgB-03. Flood Prone Roadways

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Borough Administration, Emergency Management, Public Works		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Limekiln Road and North Governor Haines Street have drainage problems, potentially due to undersized culverts, which result in periodic road flooding. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	Work with partnering agencies to identify feasible mitigation measures to provide relief from flooding impacts on Limekiln Road and North Governor Haines Street. Cost effective measures will be implemented by Public Works.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Borough along Limekiln Road and North Governor Haines Street.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding along Limekiln Road and North Governor Haines Street. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding along Limekiln Road and North Governor Haines Street, permitting first responders to traverse the roadways safely.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rain events make traversing roadways difficult, and often times unsafe.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Raise banks of stream to increase storage capacity	Cost prohibitive	
	Construct floodwall along stream	Cost prohibitive	



## Action 2025-HamburgB-04. Snow Load Improvements

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	School Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The roof of the Hamburg Elementary School, a critical facility located at 30 Linwood Avenue, cannot handle the snow load that accumulates during severe snowstorms. This becomes an issue during severe winter weather and high winds associated with severe weather, hurricane, and nor'easter events, as individuals inside the buildings may become impacted should damage to the roof be significant.																
<b>Description of the Solution:</b>	The Borough Engineer will provide guidance on the retrofit of two buildings to meet current snow load standards at Hamburg Elementary School.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, School Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	2, 6																
<b>Benefits:</b>	This action will protect Hamburg Elementary School from collapse from snow loads associated with severe winter weather and nor'easters.																
<b>Impact on Socially Vulnerable Populations:</b>	The Hamburg Elementary School may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect Hamburg Elementary School from suffering a potential roof collapse.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	Climate change is likely to increase the severity, but decrease the frequency, of severe weather events such as nor'easters and severe winter weather. This action takes in account the chance of heavier snowfalls.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Build new structures</td><td>Costly, unnecessary</td></tr><tr><td>Replace all roof without referencing changes in building standards</td><td>May result in same issue</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Build new structures	Costly, unnecessary	Replace all roof without referencing changes in building standards	May result in same issue								
Action	Evaluation																
No Action	Current problem continues																
Build new structures	Costly, unnecessary																
Replace all roof without referencing changes in building standards	May result in same issue																





## Action 2025-HamburgB-05. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input checked="" type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	There is a lack of knowledge around hazard mitigation in the region and residents are underprepared for potential natural hazard events. The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Borough by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Borough.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Borough.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-HamburgB-06. Emergency Vehicle

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Police Department, Fire Department, Public Works, Borough Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The municipality does not have an emergency vehicle to support highway and issues related to road closures and issues related to severe weather. Additional vehicles will increase capacity and overall response. Emergency vehicles can assist in placing barricades at flooded roads and roads impacted by fallen trees.																
<b>Description of the Solution:</b>	Emergency Management will meet with the Police Department, Fire Department, Public Works, and Borough Administration to determine the appropriate type of emergency vehicle which would be best suited to utilize as a barricade to prevent drivers from entering closed roads. Borough Administration will purchase a multi-purpose emergency vehicle to prevent drivers from entering closed roads.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	Borough Budget, HSGP																
<b>Implementation Timeline:</b>	Within 3 years																
<b>Goals Met:</b>	1, 5, 6																
<b>Benefits:</b>	The emergency vehicle identified in this action will be able to support the functions and responsibilities of the responding departments in the Borough, in particular ensuring the population remains safe.																
<b>Impact on Socially Vulnerable Populations:</b>	Some socially vulnerable populations, including the elderly or those with mild vision disabilities may not be able to see signs which indicate a road closure. Placing a vehicle in the roadway would deter these populations from entering a hazardous area. Furthermore, the emergency vehicle may be utilized for other response purposes which would support socially vulnerable populations.																
<b>Impact on Future Development:</b>	This new resource will support the persons and property at any future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will strengthen the safety and security lifeline by providing an additional vehicle to utilize as a road barricade to deter drivers from entering closed roads. The vehicle may also be utilized for other needs, including moving resources to the scene of an incident.																
<b>Impact on Capabilities:</b>	The purchase of a new vehicle will increase the response capabilities of the Borough to support the safety and protection of its residents.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Stronger hazard events can lead to an increase in debris, including tree limbs and branches, which would cause roadway closures.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Problem remains</td></tr><tr><td>Utilize vehicles from neighboring communities</td><td>Neighboring communities may be occupied and unable to assist</td></tr></table>			Action	Evaluation	No action	Problem remains	Utilize vehicles from neighboring communities	Neighboring communities may be occupied and unable to assist								
Action	Evaluation																
No action	Problem remains																
Utilize vehicles from neighboring communities	Neighboring communities may be occupied and unable to assist																



	Call in for State resources	State resources may be delegated elsewhere or have a delayed response due to distance
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## Action 2025-HamburgB-07. Debris Clean Up Equipment

<b>Lead Agency:</b>	Public Works		
<b>Supporting Agencies:</b>	Borough Administration		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The municipality struggles to keep up with debris cleanup operation immediately after hazard events, as it does not have the proper equipment to conduct these operations. This could cause significant issues around subsequent flooding due to clogging of roadways and waterbodies.		
<b>Description of the Solution:</b>	Purchase Bobcat Skid-Steer to use during debris cleanup operations and post-hazard events. Details are unknown at this point. Public Works shall determine the size needed for the municipality and coordinate with Borough Administration on how to raise money to purchase the machinery.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, New Jersey Department of Transportation – Local Aid Program, Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 5, 6		
<b>Benefits:</b>	This action will allow the Borough to remove debris following a hazard event, promoting safety within the jurisdiction by removing potentially dangerous debris, including tree limbs and branches, from roadways.		
<b>Impact on Socially Vulnerable Populations:</b>	The removal of debris off of roadways will permit vulnerable populations to attend medical appointments or allow first responders to reach these population to perform required medical attention.		
<b>Impact on Future Development:</b>	Future development will be supported by the debris removing equipment discussed in this action.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the clearing of debris from roadways, permitting first responders to traverse the roadways safely. Keeping the safety and security and transportation lifelines functioning during and following a hazard event is crucial to the recovery of the Borough.		
<b>Impact on Capabilities:</b>	This action would introduce a new capability to support the debris management functions of the Borough's Department of Public Works.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Stronger hazard events can lead to an increase in debris, including tree limbs and branches, building and construction materials, and various outdoor home goods.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem continues	
	Hire contractor to conduct any additional work	Low cost but dependent on external aid which might not be fully reliable	
	Rely on MOUs	Neighboring jurisdictions likely received damages as well, delaying response times	



## Action 2025-HamburgB-08. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Borough Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Borough has not developed a comprehensive strategy to address debris clearing during and after a hazard event. The Borough lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The Borough will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available								
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-HamburgB-09. Municipal Fire Plan

<b>Lead Agency:</b>	Fire Department		
<b>Supporting Agencies:</b>	Emergency Management		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Borough has previously not been successful in implementing the municipal fire plan proposed actions. Implementing these actions can reduce the risk to the wildfire hazard, protecting life, property, and the environment.		
<b>Description of the Solution:</b>	The Borough will write a Community Wildfire Protection Plan (CWPP) collaboratively with government representatives, in consultation with federal agencies and other interested parties.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	1, 2, 3, 4, 5, 6, 7		
<b>Benefits:</b>	This action will address issues such as wildfire response, hazard mitigation, community preparedness, and structure protection.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will provide socially vulnerable populations an opportunity to be involved in the planning process, as a key element in community fire planning should be the meaningful discussion it promotes among community members regarding their priorities for local fire protection and forest management.		
<b>Impact on Future Development:</b>	This action may identify areas in which future development should be restricted due to vulnerability to the wildfire hazard.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will identify critical facilities and community lifelines located within the wildland-urban interface and are vulnerable to the wildfire hazard.		
<b>Impact on Capabilities:</b>	This action will create a new capability for the Borough. Currently, the Borough does not have a CWPP.		
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem remains
	Create CWPP without collaborative input		Plan will not meet minimum HFRA requirements
	Focus on WUI with no inclusion of high fuel areas		Plan will not include all vulnerable locations or populations





## Action 2025-HamburgB-10. Local School District Mitigation Involvement

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	School District Representatives		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The municipality has previously not been able to successfully implement hazard mitigation actions in coordination with the local school districts. Local school districts have facilities which may be exposed to various hazards, including flooding, steep slopes, and wildfire. Assisting school districts identify risks to hazards and potential mitigation strategies can reduce future impacts to the facilities and individuals who may be inside them.		
<b>Description of the Solution:</b>	The Borough Emergency Manager will work with local school districts and assist with community service projects regarding hazards and mitigation. Additionally, the Emergency Manager will discuss how local school districts can link into the County's HMP to seek grant funding for hazard mitigation projects.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget, School Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	1, 2, 5, 6		
<b>Benefits:</b>	Having the Borough Emergency Manager work alongside school districts to identify vulnerabilities will provide an understanding of how the school district facilities may be impacted by various hazards and what can be done to reduce risks.		
<b>Impact on Socially Vulnerable Populations:</b>	School facilities are utilized as sheltering locations, which support the entire population of the Borough, but may be more apt to the use of socially vulnerable populations. The potential hardening of these facilities and reduction of risk will permit the facilities to remain sheltering locations.		
<b>Impact on Future Development:</b>	The potential hardening of these facilities and reduction of risk will permit the school district's facilities to support populations potentially brought in by future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	Identifying the vulnerabilities of school district facilities to hazard impacts can reduce the risk to these hazards. School district facilities are considered critical infrastructure, as it can be used as a sheltering facility.		
<b>Impact on Capabilities:</b>	This action will increase the Borough's outreach capabilities and potentially provide an opportunity for the school districts to further expand these capabilities by discuss hazard risks in school.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the school district's knowledge of how its facilities may be impacted by various hazards and how to mitigate the risks.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Discuss risks posed to school but not how to resolve them	Will not resolve identified issues, leaving school facilities vulnerable to hazard events	



	Meet with just district superintendent	Super intendent may not be closely familiar with risks posed to each school facility
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## Action 2025-HamburgB-11. Stormwater Maintenance Program

<b>Lead Agency:</b>	Engineering								
<b>Supporting Agencies:</b>	Public Works, Surrounding Municipalities								
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>								
<b>Description of the Problem:</b>	The municipality has previously had trouble around stormwater infrastructure maintenance capabilities. The municipality would like to increase maintenance capabilities of catch basins and stormwater facilities is critical especially before and after large storm events to reduce the likelihood of flooding.								
<b>Description of the Solution:</b>	The municipality would like to increase maintenance capabilities of catch basins and stormwater facilities is critical especially before and after large storm events. The municipality can do this by developing a program that can be coordinated with other municipalities to facilitate the maintained of local stormwater infrastructure. The Engineer will identify the correct capacities for catch basins, facilities, and other stormwater infrastructure; Public Works will coordinate with surrounding municipalities to institute a unified stormwater program.								
<b>Estimated Cost:</b>	Medium								
<b>Potential Funding Sources:</b>	HMGP, BRIC, Municipal Budget as needed, New Jersey Water Bank; Environmental Infrastructure Financing Program								
<b>Implementation Timeline:</b>	4 years								
<b>Goals Met:</b>	1, 2, 5								
<b>Benefits:</b>	Increasing stormwater management capabilities of the Borough will reduce its overall risk to flood hazard, protecting lives, property, and the environment.								
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties may be impacted by flooding caused by stormwater infrastructure that is not properly maintained or undersized. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.								
<b>Impact on Future Development:</b>	Future development in the Borough will be less likely to be flooded.								
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway and property flooding in the Borough, permitting first responders, residents, and visitors to traverse the roadways safely.								
<b>Impact on Capabilities:</b>	This action will enhance the Borough's stormwater management capabilities.								
<b>Climate Change Considerations:</b>	Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the stormwater infrastructure is designed to withstand these increases.								
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)								
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)								
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1" style="width: 100%;"> <thead> <tr> <th>Action</th> <th>Evaluation</th> </tr> </thead> <tbody> <tr> <td>No Action</td> <td>Current problem remains</td> </tr> <tr> <td>Hire contractor to conduct any additional work</td> <td>Low cost but dependent on external aid which might not be fully reliable</td> </tr> </tbody> </table>			Action	Evaluation	No Action	Current problem remains	Hire contractor to conduct any additional work	Low cost but dependent on external aid which might not be fully reliable
Action	Evaluation								
No Action	Current problem remains								
Hire contractor to conduct any additional work	Low cost but dependent on external aid which might not be fully reliable								



	Create program with no external support	Stormwater issues which originate in surrounding municipalities may not be fully unstood
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## Action 2025-HamburgB-12. Sewer Sanitary Facility Improvements

<b>Lead Agency:</b>	Engineer		
<b>Supporting Agencies:</b>	Public Works		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Sewer Sanitary Facility, a critical facility located at 57 Gingerbread Castle Rd, has been having issues around building cracking which has led to the threat of potential disrupted operation of the critical service. It is suspected these external deformities were formed by impacts from natural hazards, including heavy rains in severe storms. The loss of this critical facility can impact the services it provided to the Borough.		
<b>Description of the Solution:</b>	The municipal Engineer shall perform a study to determine where sanitary sewer reinforcement is needed due to most imminent threats of failure or cracking. Public Works and the Engineer could hire a contractor to conduct this assessment and determine the steps that need to be taken.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, Borough Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	2, 6		
<b>Benefits:</b>	This action bolsters existing critical infrastructure by identifying external locations on the face of the facility which need to be reinforced to maintain its functionality. The Sewer Sanitary Facility services the entire Borough.		
<b>Impact on Socially Vulnerable Populations:</b>	The Sewer Sanitary Facility services the entire Borough. Without its functionality, sewerage services may be interrupted or discontinued to the entire population of the Borough.		
<b>Impact on Future Development:</b>	This action results in the hardening of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	The water systems lifeline will be strengthened by identifying and instituting the identified cost-effective measures to reinforce the sewer sanitary facility.		
<b>Impact on Capabilities:</b>	This action will permit sewer sanitation capabilities to continue in the Borough, un-interrupted.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. These events may be able to damage external components of infrastructure, interrupting services.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Construct a new facility	Existing facility needs to be closed	
	Close facility	Services will need to be externally contracted which could be costly	



## Action 2025-HamburgB-13. Tree Maintenance

<b>Lead Agency:</b>	Public Works		
<b>Supporting Agencies:</b>	Parks and Recreation, Utility Companies, Property Owners, NJDOT		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	In previous years, the municipality has experienced accidents around tree falling and disrupting the utility lines, subsequently causing power outages. The Borough is now on the power company's tree trimming program which is implemented every three years; however, this maintenance is not frequent enough to ensure vegetation is properly trimmed. Private homeowners must ensure trees on private property are not threatening power availability/interruption.		
<b>Description of the Solution:</b>	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption in conjunction with property owners, utility companies, and NJDOT.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget, NJDOT, Property Owners, Utility Companies		
<b>Implementation Timeline:</b>	4 years		
<b>Goals Met:</b>	1, 2, 5, 7		
<b>Benefits:</b>	This action will result in the reduction of risk surrounding power outages by minimizing potential impacts from trees on utility lines.		
<b>Impact on Socially Vulnerable Populations:</b>	Some socially vulnerable population rely on power utilities for everyday care. If power outages are caused by a lack of tree maintenance, lives could potentially be at risk.		
<b>Impact on Future Development:</b>	This action assists in the protection of future development from impacts caused by tree collapses or branch falls as a result of severe weather, severe winter weather, hurricanes, and nor'easters.		
<b>Impact on Critical Facilities/Lifelines:</b>	Utility lines provide power to residencies, private businesses, government entities, and various providers. Not maintaining trees, tree limbs, or tree branches may impact the availability of power during severe weather and severe winter weather events.		
<b>Impact on Capabilities:</b>	The creation of a tree maintenance program would be a new capability for the Borough.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to trees or tree limbs/branches falling or impacting utility lines and property.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Municipal-owned trees will be maintained	
	Do not contact utility companies	Trees along utility lines may impact power during severe weather and severe winter weather events	
	Do not contact property owners	Trees on private residencies may impact power during severe weather and severe winter weather events	





## Action 2025-HamburgB-14. Bridge Mitigation

<b>Lead Agency:</b>	Engineer		
<b>Supporting Agencies:</b>	Public Works, Sussex County Public Works, NJDOT		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Bridges in the Borough are aging and may not be up to current code. The status of the Borough's bridges and causeway in relation to ability to withstand hazard events is unknown. Failure of bridges or causeways could result in loss of life and limitations to emergency access.		
<b>Description of the Solution:</b>	A comprehensive master plan should be developed for appropriate sizing of the bridge openings and setting road elevations to provide maximum benefits as the bridges are eventually replaced over time. Borough Engineering and Public Works will lead this project and reach out to Sussex County Public Works and NJDOT for any information needed on County- and State-owned bridges in the Borough.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	Borough Budget		
<b>Implementation Timeline:</b>	4 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	The creation of a comprehensive master plan to standardize the sizing of bridge openings and bridge elevations will reduce the risk of flooded roadways. This action will also identify where structural deformities are located currently on existing local, county, and state bridges.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will ensure bridges in the Borough are safe and secure to use, allowing socially vulnerable populations to reach required medical appointments, and allowing emergency response personnel to reach the populations if needed.		
<b>Impact on Future Development:</b>	Bridges located areas of future development will be able to support any new population.		
<b>Impact on Critical Facilities/Lifelines:</b>	The transportation lifelines will be strengthened as bridges are evaluated for structural deformities which may otherwise cause closures, potentially impacting evacuation routes. Replacement of any bridges will support the transportation lifelines and possibly expand the lifeline's capacity if bridges are expanded to consist of more lanes.		
<b>Impact on Capabilities:</b>	The action will create a new capability of Public Works and Engineering by developing standards for bridge openings and elevations.		
<b>Climate Change Considerations:</b>	Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Ensuring bridges in the Borough are elevated enough to minimize flooding impacts will keep populations safe and reduce the risk of flooding.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Utilize State structural integrity resources	May not include local or county infrastructure	
	Utilize County structural integrity resources	May not include local or state infrastructure	



## Action 2025-HamburgB-15. Debris in Waterways

<b>Lead Agency:</b>	Public Works		
<b>Supporting Agencies:</b>	Sussex County Public Works, NJDOT, NJDEP		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	Debris and sediment/silt buildup occurs within the streams and rivers in the Borough, occasionally blocking bridges openings. Debris build-up in waterways can contribute to the likelihood of flooding, increasing the risk of damages to surrounding infrastructure, structures, and populations.		
<b>Description of the Solution:</b>	Public Works will initiate the removal of debris, sediment, and silt from the channel as well as bridge openings; volunteer groups and outside contractors may be utilized when needed. Public Works will work with Sussex County Public Works and NJDOT to locate their bridge infrastructure. NJDEP will be notified as necessary when clearing monitored waterways.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget		
<b>Implementation Timeline:</b>	2 years, then ongoing capability		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	The institution of a debris, sediment, and silt clearing initiative will reduce the likelihood of flooding surrounding the waterways in the Borough. Furthermore, it will keep roads and bridges clear of flood waters, permitting roads to be traversed for regular and emergency needs.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will ensure bridges in the Borough are safe and secure to use, allowing socially vulnerable populations to reach required medical appointments, and allowing emergency response personnel to reach the populations if needed.		
<b>Impact on Future Development:</b>	Bridges located areas of future development will be able to support any new population.		
<b>Impact on Critical Facilities/Lifelines:</b>	The transportation lifelines will be strengthened as roads and bridges will remain clear of floodwaters which may otherwise cause closures, potentially impacting evacuation routes. The cleared roads will also permit roads to be traversed for regular and emergency needs.		
<b>Impact on Capabilities:</b>	The action will create a new capability of Public Works by implementing a debris removal program for waterways.		
<b>Climate Change Considerations:</b>	Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Removing debris and sediment buildup from waterways can reduce the likelihood of flooding.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem remains
	Dredge all waterways		Time consuming, costly
	Build levees surrounding all waterways		Costly, may interrupt natural flow of waterways and result in flooding elsewhere



## Action 2025-HamburgB-16. Drainage System Mapping

<b>Lead Agency:</b>	Public Works		
<b>Supporting Agencies:</b>	Floodplain Administrator, Borough Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The location of all catch basins and stormwater facilities, both private and public, need to be identified, mapped, and located for planning and maintenance. Information on stormwater systems can be used to optimize stormwater management efforts and monitor potential overflows during floods and severe storm events. Not having this information readily available presents an obstacle to comprehensive stormwater management.		
<b>Description of the Solution:</b>	The Borough will contract with an engineering firm to create detailed mapping of all drainage infrastructure.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	BRIC, HMGP, Borough Budget		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2		
<b>Benefits:</b>	Information on stormwater systems can be used to optimize stormwater management efforts and monitor potential overflows during floods and severe storm events.		
<b>Impact on Socially Vulnerable Populations:</b>	The mapping of stormwater systems can assist in locating where socially vulnerable populations are in relation to this infrastructure. Should the drainage infrastructure become damaged in any way near these populations, first responders can swiftly notify these populations and get them out of harms way.		
<b>Impact on Future Development:</b>	Mapping the stormwater systems in the Borough can assist in determining where future development will be supported by this infrastructure and reduce any potential impacts from hazards, such as flooding and heavy rains from severe storms.		
<b>Impact on Critical Facilities/Lifelines:</b>	Stormwater infrastructure will be properly identified and mapped, permitting officials to quickly locate and resolve any damages to the systems. Damages to stormwater infrastructure can cause flooded roadways, preventing first responders from reaching emergencies, restrict regular travel, and prevent individuals from reaching evacuation routes.		
<b>Impact on Capabilities:</b>	This action will enhance the Borough's capabilities for stormwater management.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rain events can produce excessive waters which can inundate drainage systems, potentially damaging the infrastructure and causing flooding conditions.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Request assistance from local colleges and universities in developing mapping	May not be financially feasible or sustainable	
	Create a physical map noting the location of these systems instead of a digitized version	The physical map may get lost or damaged more easily	



## Action 2025-HamburgB-17. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Borough has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Borough and potentially reduce the number of emergency calls during hazardous events.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Borough events, the Borough newsletters, social media, the Borough website, and having the materials on display for the public at Borough libraries and offices. Consider hiring staff to work directly with socially vulnerable populations. Work with Sussex County to identify and create a list of socially vulnerable populations utilizing Register Ready.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Borough. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Borough will become educated on hazards risks. The Borough will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program. It would also assist the Borough in identifying where socially vulnerable populations are located in the jurisdiction.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	



	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
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## Action 2025-HamburgB-18. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Planning Board, Borough Administration		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.		
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Borough Budget		
<b>Implementation Timeline:</b>	Within 2 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.		
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will create a new Borough capability, while enhancing its current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	
	Wait for information from the State on flood-damaged properties	May be a delay in notice	





## Action 2025-HamburgB-19. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department, Public Works		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials         </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire         </div> </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP)         </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP)         </div> </div>		
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI)         </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES)         </div> </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-HamburgB-20. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Building Department, Borough Administration, NFIP State Coordinator, FEMA Regional Office		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	<p>A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.</p>		
<b>Description of the Solution:</b>	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5,7		
<b>Benefits:</b>	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.		
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.		
<b>Impact on Capabilities:</b>	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.		
<b>Climate Change Considerations:</b>	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem exists
	Modify existing flood damage prevention ordinance		Time intensive



	Leave NFIP	Residents lose flood insurance coverage
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## Action 2025-HamburgB-21. Certified Floodplain Manager Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Building Department, Borough Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Borough does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Borough staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Borough and assure the Borough's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Borough's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## 12. TOWNSHIP OF HAMPTON

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Hampton with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Hampton, describes who participated in the planning process, assesses Hampton's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 12.1 HAZARD MITIGATION PLANNING TEAM

The Township of Hampton identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Township Administrator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 12-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 12-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Diana Juarez, Clerk/Acting Administrator Address: 1 Rumsey Way, Newton, NJ 07860 Phone Number: (973) 383-5570 Email: administrator@hamptontwp-nj.org	Name/Title: George Chattaway, EMC Address: 1 Rumsey Way, Newton, NJ 07860 Phone Number: (973) 592-2767 Email: oem@hamptontwp-nj.org
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Harold E. Pellow / Township Engineer Address: 17 Plains Road, August, NJ 07822 Phone Number: (973) 948-6463 Email: hpellow@hpellow.com	
<b>Additional Contributors</b>	
Name/Title: Jessica M. Caruso, Previous Administrator Method of Participation: Attended Planning Partnership meetings, Steering Committee meetings, and the Mitigation Strategy Workshop. Provided status updates for previous mitigation actions and developed new actions.	
Name/Title: Edward Hayes, Previous EMC Method of Participation: Attended Planning Partnership meetings, Steering Committee meetings, and the Mitigation Strategy Workshop. Provided information on previous events, building permits, and NFIP information. Provided status updates for previous mitigation actions and developed new actions.	
Name/Title: Diana Juarez, Clerk/Acting Administrator Method of Participation: Provided jurisdiction sign-off sheet and final review of annex.	
Name/Title: George Chattaway, EMC Method of Participation: Provided jurisdiction sign-off sheet and final review of annex.	
Name/Title: Harold E. Pellow, Township Engineer Method of Participation: Provided jurisdiction sign-off sheet and final review of annex.	





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Name/Title: Robert Huber, Building Code Enforcement/Construction Official  
Method of Participation: Provided jurisdiction sign-off sheet and final review of annex.

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Name/Title: Daniel Bayles, Public Works/Highway Manager  
Method of Participation: Provided jurisdiction sign-off sheet and final review of annex.

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## 12.2 COMMUNITY PROFILE

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The Township of Hampton is located in northwestern Sussex County. It has a total area of approximately 25.3 square miles. The Township is bordered to the north by Frankford Township, to the south by Fredon Township and the Town of Newton, to the east by the Townships of Lafayette and Andover, and to the west by the Township of Stillwater. The following unincorporated communities are located within the Township: Crandon Lakes, Myrtle Grove, Balesville, Halsey, and Washingtonville. Numerous ponds and lakes are found throughout the Township. The Paulins Kill flows through the center of the Township. Other streams found in Hampton Township include Troys Brook, Clearview Creek, Swartwood Creek, and smaller tributaries of Paulins Kill. According to the U.S. Census, the 2020 population for Hampton was 4,893, a 5.8-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 3.1-percent of the population is 5 years of age or younger, 4.5-percent is 65 years of age or older, 5.1-percent is non-English speaking, 4.8-percent is below the poverty threshold, and 4.7-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Township of Hampton, 31-percent of households earn less than the basic cost of living and are considered socially vulnerable (ALICE 2023).

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 12.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Hampton performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events



For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Hampton to identify opportunities for integrating mitigation concepts into ongoing Township procedures.

### 12.3.1 Planning and Regulatory Capability and Integration

Table 12-2 summarizes the planning and regulatory tools that are available to Hampton.

Table 12-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019; State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)	State & Local	Construction Official
How has or will this be integrated with the HMP and how does this reduce risk? <i>The building code provides guidance on how to design, build, and operate buildings. Modern building codes lead to major reductions in property losses from natural disasters.</i>				
<b>Zoning/Land Use Code</b>	Yes	State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49; Chapter 108 of Hampton Township Code	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan.</i>				
<b>Subdivision Code</b>	Yes	P.L.1975, c.291 (C.40:55D-47): 40:55D-37; Chapter 85 of Hampton Township Code	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.</i>				
<b>Site Plan Code</b>	Yes	Municipal Land Use Law, NJ Statute 40:27-6.2; Chapter 85 of Hampton Township Code	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.*

<b>Stormwater Management Code</b>	Yes	Title 7 of the NJ Administrative Code, N.J.A.C. 7:8; Chapter 109.	Local & State	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of the Stormwater Management Code for the State of New Jersey is to minimize pollution caused by stormwater and restore, enhance, and maintain the integrity of waters throughout the State.*

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?

Not all provisions of this law have become effective at the time of the writing of this plan.

<b>Growth Management</b>	Yes	State Development & Redevelopment Plan (Plan Endorsement); Zoning Ordinance; Chapter 108-53 of Hampton Township Code.	Local	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy.

<b>Environmental Protection Ordinance(s)</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 62 Flood Damage Prevention Ordinance adopted September 28, 1982. Amended in September 29, 2011	Federal, State & Local	Township Engineer
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How has or will this be integrated with the HMP and how does this reduce risk?

Chapter 62 applies to all special flood hazard areas (SFHA) of the Township. All new construction within the SFHA are required to comply with anchoring requirements and constructed with flood resistant materials in a manner that minimizes flood damage. All new and replaced water supply systems are to be designed to minimize or eliminate infiltration of floodwater into the system. New and replaced sanitary sewage systems are to be designed to minimize infiltration of floodwaters into the system and discharge from the system into floodwaters. On-site waste disposal shall be located to avoid impairment or contamination during a flood event. Electrical, heating, ventilation, plumbing, and air conditioning equipment is to be designed and or located to prevent water from entering within the utilities during a flood event.

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Emergency Management Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Change Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other: Special Purpose Ordinances (i.e., sensitive areas, steep slope)</b>	Yes	Chapter 48 – Carbonate Area Development, Chapter 87 – Soil Removal, and Chapter 95 – Trees	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk?				
<i>The purpose of chapter 48 is to protect and preserve the potable groundwater resource in the Township and to reduce the frequency of structural damage to improvements by sinkhole collapse or subsidence areas due to unique limestone geology.</i>				
<i>The purpose of chapter 87 is to regulate and limit uncontrolled excavation or removal and importation of soils within the Township.</i>				
<i>The purpose of chapter 95 is to restrict the excessive and uncontrolled destruction or removal of trees within the Township.</i>				
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	2018 Revised NJ Statute 40:27-2; NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28; Township of Hampton Master Plan, 2015.	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk?				
<i>The Master Plan was developed by the Master Plan Committee. The purpose of this plan is to guide land use and development within the Township. It includes the objectives, principles, assumptions, policies, and standards for economic and social development for the Township. It also includes the following elements: Land Use Plan Element, Housing Plan Element, Circulation Plan Element, Utility Service Plan Element, Community Facilities Plan Element, Recreation Plan Element, Conservation Plan Element, Economic Plan Element, Historic Preservation Plan Element, Recycling Plan Element, and a Farmland Preservation Plan Element.</i>				
<b>Capital Improvement Plan</b>	Yes	Capital Improvement Plan, 2020	Local	Finance Department
How has or will this be integrated with the HMP and how does this reduce risk?				
<i>The CIP outlines the prioritized projects and funding availability for the Township. It helps to guide spending and initiate actionable items for mitigation and other purposes.</i>				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Stormwater Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	Yes	Township of Hampton Master Plan, 2015. Conservation Plan Element	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Included as a element in the Master Plan, under the chapter Conservation Plan Element.</i>				
<b>Economic Development Plan</b>	Yes	Township of Hampton Master Plan, 2015. Economic Plan Element	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Included as a element in the Master Plan, under the chapter Economic Plan Element.</i>				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Agriculture Plan</b>	Yes	Township of Hampton Master Plan, 2015. Farmland Preservation Plan Element	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Included as an element in the Master Plan, under the chapter Farmland Preservation Plan Element.</i>				
<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Tourism Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Business/ Downtown Development Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b> How has or will this be integrated with the HMP and how does this reduce risk? <i>The Township Emergency Operation Plan outlines the procedures for emergency response. The purpose of this plan is to protect the health, safety, and resources of the residents of the Township.</i>	Yes	Hampton Township Emergency Operations Plan – Updated 2014	County & Local	Office of Emergency Management
<b>Continuity of Operations Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Substantial Damage Response Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Threat and Hazard Identification and Risk Assessment</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Post-Disaster Recovery Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Public Health Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-

### 12.3.2 Development and Permitting Capability

Table 12-3 summarizes the capabilities of Hampton to oversee and track development.



Table 12-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	Construction Department issues development permits.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	Yes	The Township completed a Housing Plan in 2019 regarding its affordable housing obligation. The plan included a buildable land inventory that identified two major tracts of land for low- and moderate-income housing, with one located in the sewer service area.
Describe the level of buildout in your jurisdiction.	N/A	There is available land for further build-out and development within the Township.

### 12.3.3 Administrative and Technical Capability

Table 12-4 summarizes potential staff and personnel resources available to Hampton and their current responsibilities that contribute to hazard mitigation.

Table 12-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	There are nine members on the Planning Board, with up to four alternates. The Planning Board follows the provisions of Chapter 30 in the municipal code and the Municipal Land Use Law, and accordingly exercise its powers regarding the Master Plan; subdivision control and site plan review; the Official Map, if there be one; the Zoning Ordinance; conditional uses; capital improvements program; variances and certain building permits in conjunction with subdivision, site plan and conditional use approval.
Zoning Board of Adjustment	Yes	The Zoning Department in ordinance vesting powers of the Hampton Township Zoning Board of Adjustment in the Hampton Township Planning Board by Ordinance #2021-12
Planning Department	Yes	The Planning Department consists of the Planning Board.
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	Yes	The Open Space Committee is comprised of one member of the Township Committee, three Planning Board members, and three citizens of the Township. The Open Space Committee prepares a report recommending which parcels of land should be acquired in fee and/or those parcels of land from which the Township should acquire development rights only; submits to the Township



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		Committee a prioritized list of properties which it recommends that the Township acquire and/or properties from which it recommends that development rights should be acquired; and holds public meetings, which public meetings shall be held in accordance with the Open Public Meetings Act.
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	Public Works Department includes the Public Works Manager.
Construction/Building/Code Enforcement Department	Yes	The Construction Department consists of the Code Enforcement Officer (Construction Official), Secretary, Fire Official, and Electrical inspector.
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management in the Township is a standalone office. The Municipal Emergency Management Coordinator in accordance with regulations promulgated by the State Director of Emergency Management, shall be empowered to issue and enforce such orders as may be necessary to implement and carry out Emergency Management operations and to protect the health, safety, and resources of the residents of the municipality.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Risk Management Consultant/Statewide Insurance
Mutual aid agreements	Yes	Local/County
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	Emergency Management Department is responsible for all emergency management procedures and local disaster emergency response within the Township.
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Township Engineer Harold E. Pellow
Engineers or professionals trained in building or infrastructure construction practices	Yes	Township Engineer Harold E. Pellow
Planners or engineers with an understanding of natural hazards	Yes	Township Engineer Harold E. Pellow
Staff with expertise or training in benefit/cost analysis	Yes	Township Administrator Jessica Caruso
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Township Engineer Harold E. Pellow
Staff that work with socially vulnerable populations or underserved communities	No	-



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Township Engineer Harold E. Pellow
Emergency manager	Yes	Emergency Management Coordinator Edward Hayes
Grant writers	Yes	Township Administrator Jessica Caruso
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 12.3.4 Fiscal Capability

Table 12-5 summarizes financial resources available to Hampton.

Table 12-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes, COAH
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No, Private Communities
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Yes

### 12.3.5 Education and Outreach Capability

Table 12-6 summarizes the education and outreach resources available to Hampton.

Table 12-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Edward Hayes, Emergency Management
Personnel skilled or trained in website development	Yes	Website creation in progress.
Hazard mitigation information available on your website	No	-



Outreach Resources	Available? (Yes/No)	Comment
Social media for hazard mitigation education and outreach	Yes	Facebook
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Reverse 9-1-1 (opt-in)
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	OEM Register Ready

### 12.3.6 Community Classifications

Table 12-7 summarizes classifications for community programs available to Hampton.

Table 12-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	9	2020
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 12.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 12-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement



Table 12-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Medium
Disease Outbreak	Medium
Drought	Medium
Earthquake	Medium
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Medium
Nor'easter	Medium
Severe Weather	Medium
Severe Winter Weather	Medium
Wildfire	Medium

## 12.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 12-1 is responsible for maintaining this information.

### 12.4.1 NFIP Statistics

Table 12-9 summarizes the NFIP policy and claim statistics for Hampton.

Table 12-9. Hampton NFIP Summary of Policy and Claim Statistics

# Policies	3
# Claims (Losses)	1
Total Loss Payments	\$0.00
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*





Source: FEMA 2024

## 12.4.2 Flood Vulnerability Summary

Table 12-10 provides a summary of the NFIP program in Hampton.

Table 12-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Township occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	No homeowners or business owners are interested in mitigation at this time.
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Township Engineer
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes – federal, state, and regional online resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Continuing education and certification training on floodplain management would be welcomed by the FPA if it were offered in the County.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review and engineering capabilities
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Staff and funding





NFIP Topic	Comments
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	July 30, 2012
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 62
What is the date that your flood damage prevention ordinance was last amended?	September 29, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Planning and Zoning Boards consider efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has subdivision and site plan ordinances.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 12.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 12-11 through Table 12-13.

Table 12-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	3	0	0	3
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	8	0	1	9
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	9	0	0	9





	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 12-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 12-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Anticipated.					

## 12.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Hampton's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 12.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 12-1 through Figure 12-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Hampton has significant exposure. The maps show the location of potential new development, where available.

Figure 12-1. Hampton Flood and Sinkhole Hazard Area Extent and Location Map

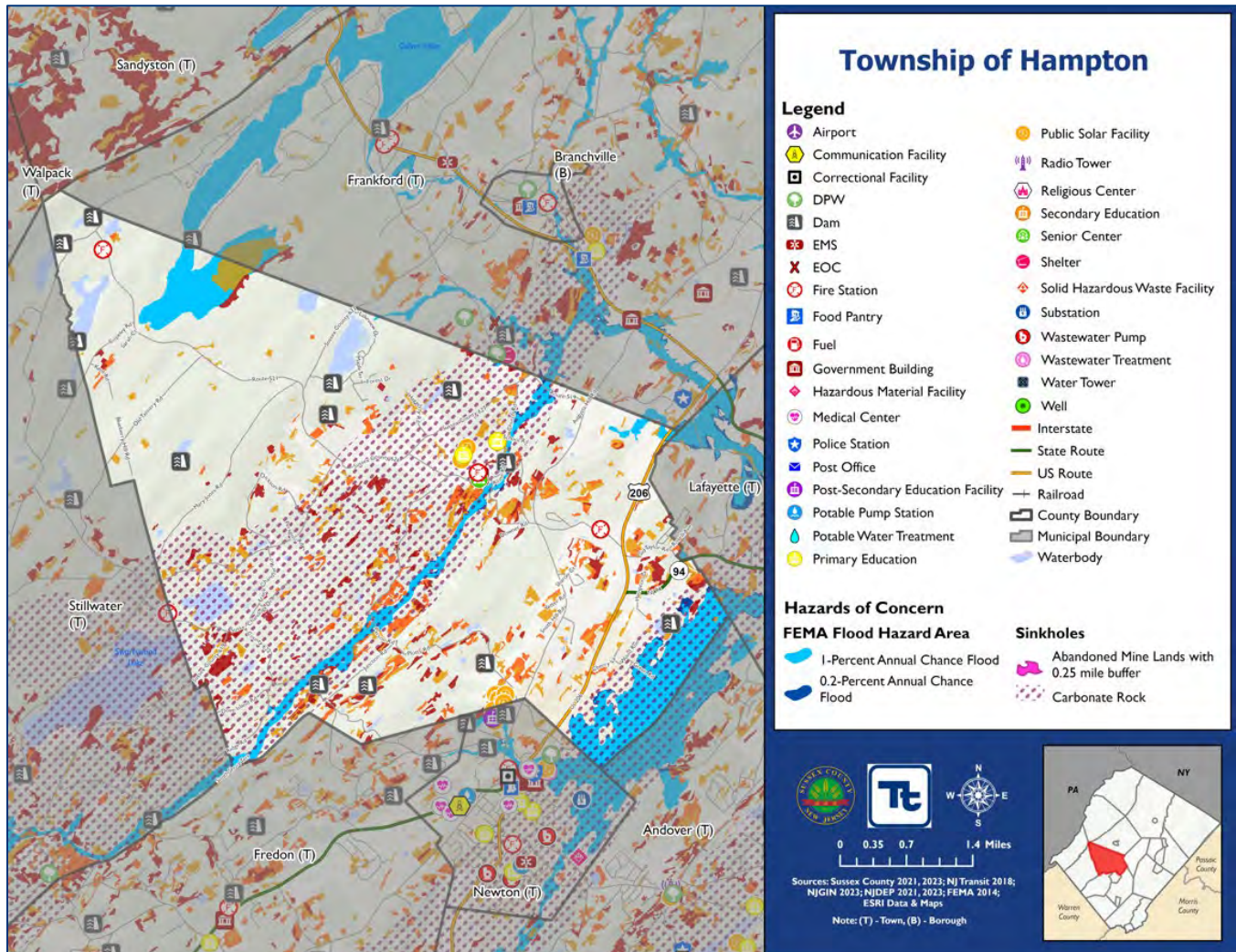




Figure 12-2. Hampton Hazardous Materials and Wildfire Hazard Area Extent and Location Map

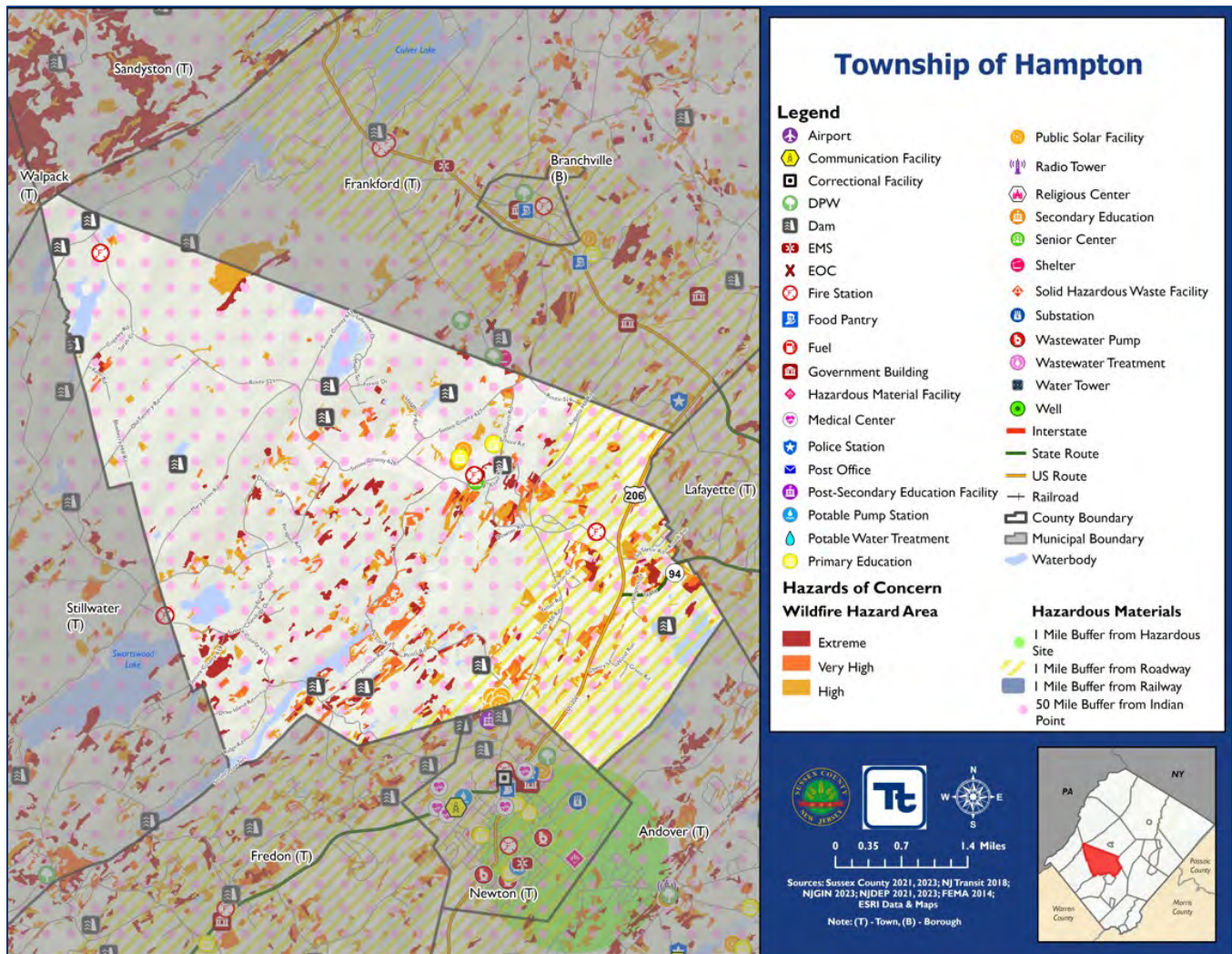
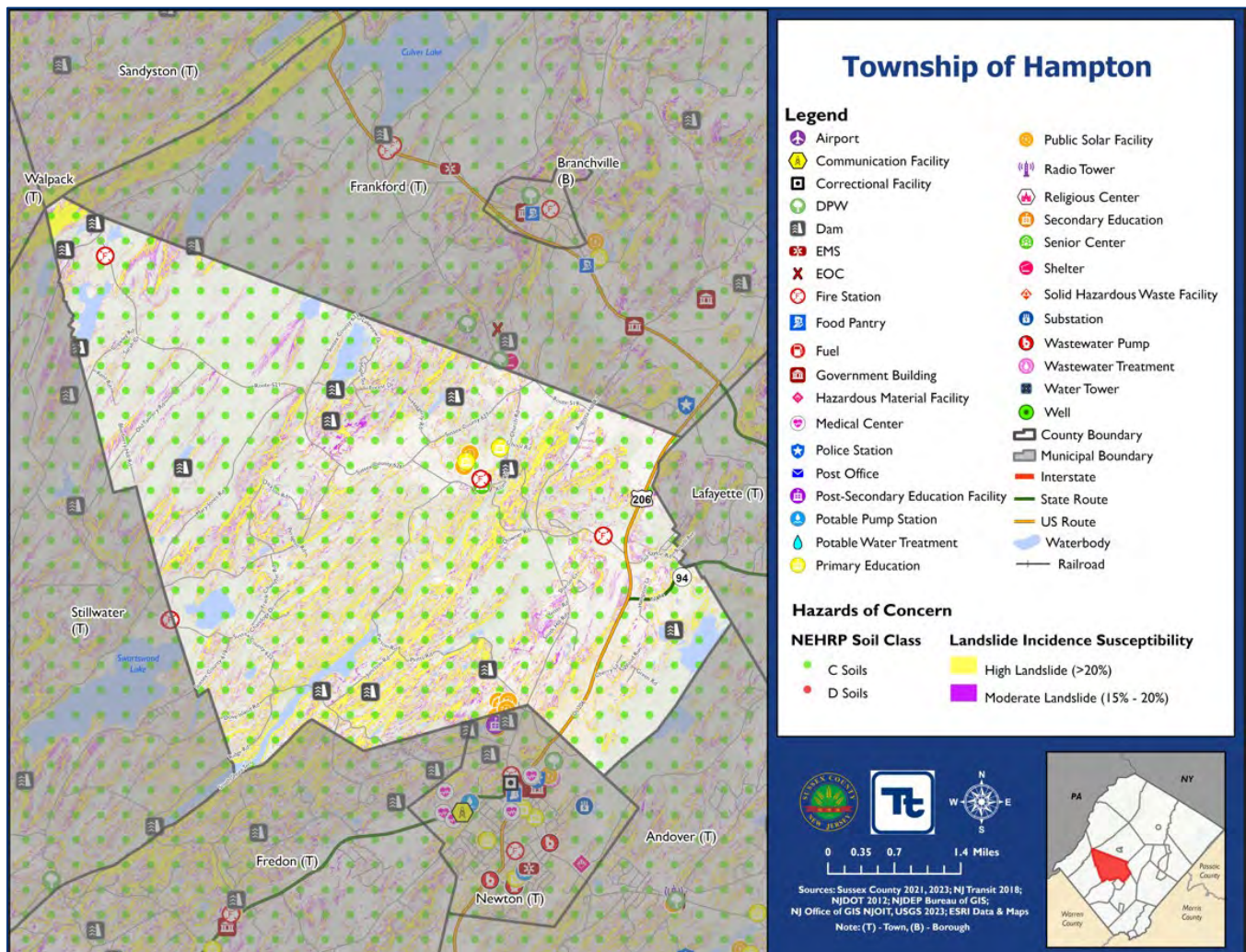




Figure 12-3. Hampton NEHRP and Landslide Hazard Area Extent and Location Map







## 12.6.2 Hazard Event History

The history of natural and non-natural hazard events in Hampton is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 12-14 provides details on loss and damage in Hampton during hazard events since the last hazard mitigation plan update.

Table 12-14. Hazard Event History in Hampton

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hampton
January 20, 2020 –May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Township enforced masking and social distancing mandates as required.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	No direct damages were experienced by the Township.
January 31-February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	No direct damages were experienced by the Township.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	No direct damages were experienced by the Township.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 12.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Hampton .

### Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of



the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Hampton reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the following:

- The Township agrees with the following risk ranking score developed during the hazard ranking workshop.

Table 12-15 shows Hampton's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 12-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 12-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 12-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Balesville Dam	Dam	Yes	Yes		

Source: Sussex County 2021, 2023; NJGIN 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Hampton:



- Crandon Lake Dam
- Kemah Lake Dam

### 12.6.4 Identified Issues

After review of Hampton's hazard event history, hazard rankings, hazard location, and current capabilities, Hampton identified the following vulnerabilities within the community:

- Flooding along Route 519 threatening critical facilities, homes, and school, putting lives at risk. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- The culvert located at the northern intersection of CR-622 (Swartswood Road) and Old Swartswood is deteriorating. The 36" RCCP drain requires replacement and may cause the road to collapse. The shoulder of the road has longitudinal cracking, and there is significant erosion downstream of the culvert. The concrete is separating in several areas, and rip rap has fallen through the pipe separation. The runoff derives from two ponds at the Salesian Sisters property, where the channel runs downhill, under the road, the enters a small pond. From the pond, the channel runs underneath the Township and County Road.
- Ike Williams Road and Dickson Road comprise a continuous 1.6-mile road that branches off Route 521. The terminus of these two roads occurs at a curve located adjacent to private properties, where a tributary of Little Swartswood Lake runs southward towards the lake. Due to the unique topography of the area, water runs off the surrounding hills and washes out the culvert located at the curve. The private property ownership complicates potential mitigation solutions. In addition to this culvert, Ike Williams Road shows longitudinal cracking along the roadway where the creek under the aforementioned intersection runs under Ike Williams Road approximately 150 feet to the southwest.
- The roof of the Township's Public Works Facility, a critical facility located at 3 Rumsey Way, Newton, NJ 07860, cannot handle the snow load that accumulates during severe snowstorms. This becomes an issue during severe winter weather and high winds associated with severe weather, hurricane, and nor'easter events, as individuals inside the buildings may become impacted should damage to the roof be significant.
- The Township buildings lack a capacity for emergency management functions and storage of records related to emergency management. Having adequate space for emergency management functions will allow personnel to conduct required actions relating to response, recovery, mitigation, and preparedness. The proper storage of records is crucial, as these records may include governmental retention requirements and detailed histories of past events.
- The Township does not have a Community Wildfire Protection Plan (CWPP) to help with wildfire management and procedures. The creation and implementation of a CWPP will increase awareness of the wildfire risk in the Township and identify various methods to mitigate wildfires.
- The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods. The Township does not currently have hazard mitigation information and outreach on the Township website.
- The Balesville Dam is located in the 1- and 0.2-percent flood hazard areas. The Township also has two high-hazard potential dams, Crandon Lake Dam and Kemah Lake Dam, within its jurisdiction. These structures have the potential to impact those living nearby.
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language



related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Township's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.

- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township is currently not part of the Firewise program. The Township has a significant wildfire risk that is exacerbated by dead trees resulting from pest infestations (gypsy moth and lantern flies) and federal/state land management issues.
- The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Township has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.
- Crandon Lake Dam is a Class I High Hazard Dam that is located on Crandon Lake. The dam is owned by the Township of Stillwater. Failure of the dam could result in inundation of forested areas, populated areas local roadways including Upper Dam Road, West Shore Drive, Tulip Trail, and East Shore Drive. Lower Crandon Lake is located South of Crandon Lake, which could further extend impacts from a dam failure Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Kemah Lake Dam is a Class I High Hazard Dam that is located on Lake Kemah. The dam is owned by the Kemah Lake Property Owners Association. Failure of the dam could result in inundation of forested areas, populated areas local roadways including Lakeview Drive, Hemlock Woods, Lake Point Circle, and Laketop Drive. Although the dam was last inspected in 2024 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 12.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.



### 12.7.1 Past Mitigation Action Status

Table 12-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 12.7.2 Additional Mitigation Efforts

Hampton did not identify any additional mitigation efforts completed since the last HMP.



Table 12-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-HamptonTwp-001	Old Swartwood Road Culvert Mitigation	Flood, Hurricane, Nor'easter, Severe Winter Weather, Severe Weather, Tropical Storms	Township DPW/Engineer; DEP; Sussex County; private owners	<b>Problem:</b> The culvert located at the northern intersection of CR-622 (Swartwood Road) and Old Swartwood is deteriorating. The 36" RCCP drain requires replacement and may cause the road to collapse. The shoulder of the road has longitudinal cracking, and there is significant erosion downstream of the culvert. The concrete is separating in several areas, and rip rap has fallen through the pipe separation. The runoff derives from two ponds at the Salesian Sisters property, where the channel runs downhill, under the road, the enters a small pond. From the pond, the channel runs underneath the Township and County Road.  <b>Solution:</b> The Township proposes to re-examine drainage in the area and implement mitigating measures for the culvert.	1. No Progress 2. Due to financial constraints, the Township was not able to make any progress with this project.	1. Include in update 2. Not applicable 3. Not applicable
2021-HamptonTwp-002	Ambulance Acquisition	All Hazards	Hampton Fire Rescue	<b>Problem:</b> The Township has been losing emergency vehicles due to aging equipment and loss of staff. The Township has identified a need for an ambulance.  <b>Solution:</b> The Township proposes to acquire a new ambulance.	1. Completed (2022) 2. Fire Department funding.	1. Discontinue. 2. Not applicable 3. Completed.





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-HamptonTwp-003	Ike Williams and Dickson Road Mitigation	Flood, Geological Hazards, Hurricane, Nor'easter, Severe Weather, Tropical Storms	Township DPW; DEP; Private owner	<p>Ike Williams Road and Dickson Road comprise a continuous 1.6-mile road that branches off Route 521. The terminus of these two roads occurs at a curve located adjacent to private properties, where a tributary of Little Swartwood Lake runs southward towards the lake. Due to the unique topography of the area, water runs off the surrounding hills and washes out the culvert located at the curve. The private property ownership complicates potential mitigation solutions. In addition to this culvert, Ike Williams Road shows longitudinal cracking along the roadway where the creek under the aforementioned intersection runs under Ike Williams Road approximately 150 feet to the southwest.</p> <p><b>Solution:</b> The Township proposes to study the drainage issue and implement mitigation measures to protect the roadway intersection, downstream properties, and the Ike Williams Road culvert. Potential mitigation measures could include retention basins.</p>	1. No Progress 2. Due to financial constraints, the Township was not able to make any progress with this project.	1. Include in update 2. Not applicable 3. Not applicable
2021-HamptonTwp-004	DPW Roof Retrofit	Township DPW; Engineer	Hurricane, Nor'Easter, Severe Winter Weather,	<p><b>Problem:</b> The roof of the Township's DPW facility requires a retrofit for compliance.</p>	1. No Progress 2. Due to financial constraints, the Township was not able to	1. Include in update 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
			Severe Weather, Tropical Storms	<b>Solution:</b> The Township proposes to examine the roof of the DPW and determine and implement design solutions for the roof.	make any progress with this project.	
2021-HamptonTwp-005	Firewise Participation	Wildfire	NJDEP; Hampton Fire Rescue	<b>Problem:</b> The Township has a significant wildfire risk that is exacerbated by dead trees resulting from pest infestations (gypsy moth and lantern flies) and federal/state land management issues.  <b>Solution:</b> The Township proposes to participate in the Firewise program to mitigate wildfire risk.	1. No Progress 2. Due to other prioritized projects, the Township was unable to make any progress.	1. Include in update 2. Not applicable 3. Not applicable
2021-HamptonTwp-006	OEM Trailer Acquisition	All Hazards	Township OEM	<b>Problem:</b> The Township buildings lack a capacity for OEM functions and storage of records related to emergency management.  <b>Solution:</b> The Township proposes to acquire a trailer to house OEM functions and consolidate records that need to be retained from hazard events.	1. No Progress 2. Due to financial constraints, the Township was not able to make any progress with this project.	1. Include in update 2. Revise solution to include digitization of records and relocation of OEM functions to another government building or the construction of a new facility with climate control so paper documents are not impacted by weathering. 3. Not applicable
2021-HamptonTwp-007	Disaster Debris Management Plan	All Hazards	Hampton Twp. - Administration	<b>Problem:</b> The Township lacks a debris management plan.  <b>Solution:</b> The Township will develop and adopt a Disaster Debris Management Plan.	1. No Progress 2. Due to other prioritized projects, the Township was unable to make any progress.	1. Include in update 2. Not applicable 3. Not applicable
2021-HamptonTwp-008	Flood Damage	Flood	Administration, FPA	<b>Problem:</b> The Township's Flood Damage Prevention Ordinance lacks	1. No Progress	1. Include in update 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Prevention Ordinance			the state mandated 1 foot of freeboard.  <b>Solution:</b> The Township will update the ordinance to include 1 foot of freeboard for new construction in the SFHA.	2. Due to other prioritized projects, the Township was unable to make any progress.	



### 12.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Hampton participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Hampton would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 12-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 12-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 12-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X		X		X	X
Disease Outbreak		X		X			X			X
Drought		X		X			X			X
Earthquake	X	X		X	X		X			X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X	X		X	X	X	X		X	X
Hazardous Materials	X	X		X	X		X			X
Hurricane	X	X		X	X	X	X		X	X
Infestation		X		X			X			X
Nor'easter	X	X		X	X	X	X		X	X
Severe Weather	X	X		X	X	X	X		X	X
Severe Winter Weather	X	X		X	X		X		X	X
Wildfire	X	X		X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 12-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-HamptonTwp-01	Debris Management along Route 519	1	1	1	0	0	1	1	1	1	1	1	1	1	0	11	High
2025-HamptonTwp-02	Upgrades to Culverts along CR-622	1	1	1	0	0	1	1	1	0	1	1	1	1	1	11	High
2025-HamptonTwp-03	Drainage Mitigation Study	1	1	1	0	0	1	1	1	1	1	1	1	1	1	12	High
2025-HamptonTwp-04	Public Works Snow Load Improvements	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-HamptonTwp-05	Emergency Management Functionality	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-HamptonTwp-06	Community Wildfire Protection Plan Development	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-HamptonTwp-07	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-HamptonTwp-08	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
A2025-HamptonTwp-09	Code Coordinated Ordinance	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-HamptonTwp-10	Substantial Damage Procedures	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-HamptonTwp-11	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-HamptonTwp-12	Certified Floodplain Manager Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-HamptonTwp-13	Firewise Program Participation	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High





Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-HamptonTwp-14	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-HamptonTwp-15	Crandon Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-HamptonTwp-16	Kemah Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

*Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).*



## Action 2025-HamptonTwp-01. Debris Management along Route 519

<b>Lead Agency:</b>	Public Works																
<b>Supporting Agencies:</b>	NJDEP, Emergency Management																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Flooding along Route 519 threatening critical facilities, homes, and school, putting lives at risk. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.																
<b>Description of the Solution:</b>	NJDEP gave permission to the Township previously to allow Public Works to clear out debris to keep the roadway open and operational. The Township will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events and reduce flooding along Rt. 519.																
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations, such as those under the age of five or the elderly, will be protected from flooding of Rt. 519.																
<b>Impact on Future Development:</b>	Future development planned nearby Rt. 519 will be protected against flooding impacts.																
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities such as schools and Rt. 519 will be protected against flooding impacts and will remain operational during a flood or severe storm event.																
<b>Impact on Capabilities:</b>	This action will ensure Rt. 519 is operational during a flood event and strengthen the Township's capabilities for first responders to access the community in time of need.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input checked="" type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Problem Persists</td></tr><tr><td>Remove Roadway</td><td>Not an option. A loss of service upon removal of roadway. It would be costly.</td></tr><tr><td>Elevate Roadway</td><td>Short term solution for debris management. Is a costly action. A temporary loss of services during rebuild.</td></tr></table>	Action	Evaluation	No Action	Problem Persists	Remove Roadway	Not an option. A loss of service upon removal of roadway. It would be costly.	Elevate Roadway	Short term solution for debris management. Is a costly action. A temporary loss of services during rebuild.								
Action	Evaluation																
No Action	Problem Persists																
Remove Roadway	Not an option. A loss of service upon removal of roadway. It would be costly.																
Elevate Roadway	Short term solution for debris management. Is a costly action. A temporary loss of services during rebuild.																



## Action 2025-HamptonTwp-02. Upgrades to Culverts along CR-622

<b>Lead Agency:</b>	Township Engineer		
<b>Supporting Agencies:</b>	Public Works, NJDEP, Sussex County, Private Owners		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The culvert located at the northern intersection of CR-622 (Swartswood Road) and Old Swartswood is deteriorating. The 36" RCCP drain requires replacement and may cause the road to collapse. The shoulder of the road has longitudinal cracking, and there is significant erosion downstream of the culvert. The concrete is separating in several areas, and rip rap has fallen through the pipe separation. The runoff derives from two ponds at the Salesian Sisters property, where the channel runs downhill, under the road, the enters a small pond. From the pond, the channel runs underneath the Township and County Road.		
<b>Description of the Solution:</b>	The Township will re-examine drainage in the area and implement mitigating measures for the culverts. The Township Public Works will complete the necessary upsizing for those culverts noted to be undersized.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, operating budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2		
<b>Benefits:</b>	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.		
<b>Impact on Socially Vulnerable Populations:</b>	Areas that were previously vulnerable to frequency or severe flooding events will be less likely to be impacted by flooding events. Socially vulnerable populations, such as the elderly, who utilize CR-622 will be protected from roadway collapse.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	CR-622 is a critical roadway and intersection and will remain open and safely operable. Access to health and medical facilities will be maintained, both for healthcare workers and the population who requires treatment for injuries and illness.		
<b>Impact on Capabilities:</b>	Identifying the most feasible mitigation options for restoring the deteriorating culverts will allow for the Township to strengthen their stormwater management capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to result in more frequent and severe rainfall events. This action upsizes culvert sizes to meet changing stormwater needs as the result of climate change.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Problem persists	
	Remove roadway	Roadway cannot be removed	
	Raingardens	Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.	



## Action 2025-HamptonTwp-03. Drainage Mitigation Study

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works, NJDEP, Private Owner		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Ike Williams Road and Dickson Road comprise a continuous 1.6-mile road that branches off Route 521. The terminus of these two roads occurs at a curve located adjacent to private properties, where a tributary of Little Swartswood Lake runs southward towards the lake. Due to the unique topography of the area, water runs off the surrounding hills and washes out the culvert located at the curve. The private property ownership complicates potential mitigation solutions. In addition to this culvert, Ike Williams Road shows longitudinal cracking along the roadway where the creek under the aforementioned intersection runs under Ike Williams Road approximately 150 feet to the southwest.		
<b>Description of the Solution:</b>	The Township Engineer will conduct a study on the drainage issue and implement mitigation measures to protect the roadway intersection, downstream properties, and the Ike Williams Road culvert. Potential mitigation measures could include retention basins. The Department of Public Works will implement the selected cost-effective project.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township budget		
<b>Implementation Timeline:</b>	Within 4 years		
<b>Goals Met:</b>	1, 2		
<b>Benefits:</b>	Culverts will be able to properly function during a flood event protecting critical roadway and properties.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations, such as the elderly and children, will be protected against flooding impacts in the area.		
<b>Impact on Future Development:</b>	Future development planned around the area or that will utilize the roadway intersection will be protected against stormwater inundation.		
<b>Impact on Critical Facilities/Lifelines:</b>	Ike Williams Road and Dickson Road are critical infrastructure to the Township and will be protected against stormwater runoff to ensure they remain safely operable during a severe storm event.		
<b>Impact on Capabilities:</b>	This action will strengthen the Townships capabilities for EMS and first responders to utilize Ike Williams Road and Dickson Road respond to emergencies during a severe storm event.		
<b>Climate Change Considerations:</b>	Climate change is likely to result in more frequent and severe rainfall events. This action studies the drainage shortfalls of the area so that mitigation actions can be implemented to address stormwater runoff issues.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Problem persists	
	Rain gardens	Raingardens are unlikely to be able to absorb enough stormwater on their own to prevent flooding during severe rainfall events	



	Construct a retention pond	Without planning a guidance, a retention pond in the wrong drainage area may cause more severe impacts than mitigation benefits.
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## Action 2025-HamptonTwp-04. Public Works Snow Load Improvements

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The roof of the Public Works Facility, a critical facility located at 3 Rumsey Way, Newton, NJ 07860, cannot handle the snow load that accumulates during severe snowstorms. This becomes an issue during severe winter weather and high winds associated with severe weather, hurricane, and nor'easter events, as individuals inside the buildings may become impacted should damage to the roof be significant.																
<b>Description of the Solution:</b>	The Township Engineer will provide guidance on the retrofit of two buildings to meet current snow load standards at the Public Works Facility.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Township Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	2, 6																
<b>Benefits:</b>	This action will protect the Public Works Facility from collapse from snow loads associated with severe winter weather and nor'easters.																
<b>Impact on Socially Vulnerable Populations:</b>	The Public Works Facility may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect the Public Works Facility from suffering a potential roof collapse.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	Climate change is likely to increase the severity, but decrease the frequency, of severe weather events such as nor'easters and severe winter weather. This action takes in account the chance of heavier snowfalls.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Build new structures</td><td>Costly, unnecessary</td></tr><tr><td>Replace all roof without referencing changes in building standards</td><td>May result in same issue</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Build new structures	Costly, unnecessary	Replace all roof without referencing changes in building standards	May result in same issue								
Action	Evaluation																
No Action	Current problem continues																
Build new structures	Costly, unnecessary																
Replace all roof without referencing changes in building standards	May result in same issue																





## Action 2025-HamptonTwp-05. Emergency Management Functionality

<b>Lead Agency:</b>	Township OEM										
<b>Supporting Agencies:</b>	Township Administration										
<b>Hazard(s) of Concern:</b>	<div><div><input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials</div><div><input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire</div></div>										
<b>Description of the Problem:</b>	The Township buildings lack a capacity for emergency management functions and storage of records related to emergency management. Having adequate space for emergency management functions will allow personnel to conduct required actions relating to response, recovery, mitigation, and preparedness. The proper storage of records is crucial, as these records may include governmental retention requirements and detailed histories of past events.										
<b>Description of the Solution:</b>	The Township will assess the feasibility of constructing a new facility for the Office of Emergency Management (OEM), or moving to an existing Township facility, so the OEM has adequate space for operations and the storage of pertinent records and documentation. An additional option would be to acquire a climate-controlled trailer or sea box to house OEM functions and consolidate records that need to be retained from hazard events.										
<b>Estimated Cost:</b>	Medium										
<b>Potential Funding Sources:</b>	Township budget, FEMA EOC Grant										
<b>Implementation Timeline:</b>	Short										
<b>Goals Met:</b>	1, 2										
<b>Benefits:</b>	This action will provide adequate space for the OEM to perform operations and emergency functions. Furthermore, it will secure a safe location for required document storage.										
<b>Impact on Socially Vulnerable Populations:</b>	OEM is responsible for protecting the community from emergency events, including socially vulnerable populations such as the elderly and disabled. This action will ensure OEM functions remain operable during hazard events.										
<b>Impact on Future Development:</b>	This action will ensure the OEM is functional and operational to support events and incidents in areas of future development.										
<b>Impact on Critical Facilities/Lifelines:</b>	OEM is a function within the safety and security lifeline. This action will ensure it is operable during a hazard event.										
<b>Impact on Capabilities:</b>	This action will strengthen the OEM capabilities within the Township in the event that OEM needs to access records pertinent to emergency services.										
<b>Climate Change Considerations:</b>	Consideration should be made for more frequent hazard events that are of a greater magnitude than typical.										
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)</div>										
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)</div>										
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><thead><tr><th>Action</th><th>Evaluation</th></tr></thead><tbody><tr><td>No Action</td><td>Problem persists</td></tr><tr><td>Remove OEM</td><td>Loss of emergency services. Not an option.</td></tr><tr><td>Elevate the existing OEM building.</td><td>Problem still may exist. Building can still be vulnerable to other hazards, such as wildfires, earthquakes, and more.</td></tr></tbody></table>	Action	Evaluation	No Action	Problem persists	Remove OEM	Loss of emergency services. Not an option.	Elevate the existing OEM building.	Problem still may exist. Building can still be vulnerable to other hazards, such as wildfires, earthquakes, and more.		
Action	Evaluation										
No Action	Problem persists										
Remove OEM	Loss of emergency services. Not an option.										
Elevate the existing OEM building.	Problem still may exist. Building can still be vulnerable to other hazards, such as wildfires, earthquakes, and more.										



## Action 2025-HamptonTwp-05. Community Wildfire Protection Plan Development

<b>Lead Agency:</b>	Township Fire Department																
<b>Supporting Agencies:</b>	Township OEM, NJ Fire Service, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township does not have a Community Wildfire Protection Plan (CWPP) to help with wildfire management and procedures. The creation and implementation of a CWPP will increase awareness of the wildfire risk in the Township and identify various methods to mitigate wildfires.																
<b>Description of the Solution:</b>	The Township will work on developing and adopting a CWPP in collaboration with government representatives, in consultation with federal agencies and other interested parties. The CWPP will include wildfire management and procedures for wildfire emergency response and protocol.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Township budget, staff time																
<b>Implementation Timeline:</b>	Within 3 years																
<b>Goals Met:</b>	1, 2, 3, 4																
<b>Benefits:</b>	The entire community will be protected from wildfire impacts, and wildfire response capabilities within the Township will be strengthened.																
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations, such as the elderly or children, are highly vulnerable to the impacts of wildfire events. It may be extremely difficult for these people in the community to evacuate or respond to a wildfire hazard. This plan would consider special procedures for socially vulnerable populations in time of a wildfire hazard event.																
<b>Impact on Future Development:</b>	This plan will consider protocols and procedures for wildfire response for the entire Township including areas of new development. The plan may identify areas in which future development should be restricted due to vulnerability to the wildfire hazard.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will identify critical facilities and community lifelines located within the wildland–urban interface and are vulnerable to the wildfire hazard.																
<b>Impact on Capabilities:</b>	This will strengthen the Townships wildfire response capabilities in the event of occurrence.																
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Problem persists</td></tr><tr><td>Utilize the EOP</td><td>Does not include extensive procedures for wildfire response.</td></tr><tr><td>Rely on Federal assistance</td><td>Not always available during the time of a wildfire event and the community is still at future risk.</td></tr></table>	Action	Evaluation	No Action	Problem persists	Utilize the EOP	Does not include extensive procedures for wildfire response.	Rely on Federal assistance	Not always available during the time of a wildfire event and the community is still at future risk.								
Action	Evaluation																
No Action	Problem persists																
Utilize the EOP	Does not include extensive procedures for wildfire response.																
Rely on Federal assistance	Not always available during the time of a wildfire event and the community is still at future risk.																



## Action 2025-HamptonTwp-07. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods. The Township does not currently have hazard mitigation information and outreach on the Township website.		
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Township by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Township.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Township.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-HamptonTwp-08. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM																
<b>Supporting Agencies:</b>	NJDEP, Dam Owners																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Balesville Dam is located in the 1- and 0.2-percent flood hazard areas. The Township also has two high-hazard potential dams, Crandon Lake Dam and Kemah Lake Dam, within its jurisdiction. These structures have the potential to impact those living nearby.																
<b>Description of the Solution:</b>	The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM. The Township will conduct public outreach to the high hazard dam owners and provide examples of mitigation actions to protect these structures from dam failure.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5, 7																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Township will be unaware of any safety concerns for the dam or its condition</td></tr><tr><td>Utilize information from NJDEP</td><td>Owners may not be required to submit a safety plan to the State</td></tr><tr><td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr></table>	Action	Evaluation	No Action	Township will be unaware of any safety concerns for the dam or its condition	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory								
Action	Evaluation																
No Action	Township will be unaware of any safety concerns for the dam or its condition																
Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State																
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory																



## Action 2025-HamptonTwp-09. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator						
<b>Supporting Agencies:</b>	Construction Official, Township Administration, NFIP State Coordinator, FEMA Regional Office						
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>						
<b>Description of the Problem:</b>	<p>A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Township's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.</p>						
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.</p>						
<b>Estimated Cost:</b>	Staff time						
<b>Potential Funding Sources:</b>	Municipal budget						
<b>Implementation Timeline:</b>	Within 5 years						
<b>Goals Met:</b>	1, 2, 7						
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>						
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>						
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>						
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>						
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>						
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>						
<b>Mitigation Category</b>	<div><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>						
<b>CRS Category</b>	<div><input checked="" type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>						
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low				
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem exists</td></tr></table>	Action	Evaluation	No Action	Current problem exists		
Action	Evaluation						
No Action	Current problem exists						



	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage





## Action 2025-HamptonTwp-10. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Public Works, Emergency Management, Construction Department																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
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<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"><li>• Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li><li>• Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li><li>• Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li><li>• Require permits for floodplain development.</li></ul> <p>The municipality does not have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process to provide a framework for conducting such inspections and determinations.</p>																
<b>Description of the Solution:</b>	<p>The municipality will develop Substantial Damage procedures, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This process will include the Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 7																
<b>Benefits:</b>	These procedures will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.																
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.																
<b>Impact on Future Development:</b>	Substantial Damage procedures would include all existing, current, and future development in the municipality.																
<b>Impact on Critical Facilities/Lifelines:</b>	Substantial Damage procedures would include all critical facilities and lifelines in the municipality.																
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>															



	No action	Problem persists
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-HamptonTwp-11. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Planning Board, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.		
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 2 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.		
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	
	Wait for information from the State on flood-damaged properties	May be a delay in notice	



## Action 2025-HamptonTwp-12. Certified Floodplain Manager Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Construction Department, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township h and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-HamptonTwp-13. Firewise Program Participation

<b>Lead Agency:</b>	Fire Department						
<b>Supporting Agencies:</b>	Township Administration						
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire						
<b>Description of the Problem:</b>	The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township is currently not part of the Firewise program. The Township has a significant wildfire risk that is exacerbated by dead trees resulting from pest infestations (gypsy moth and lantern flies) and federal/state land management issues.						
<b>Description of the Solution:</b>	The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up outreach meetings.						
<b>Estimated Cost:</b>	Low						
<b>Potential Funding Sources:</b>	Municipal Budget						
<b>Implementation Timeline:</b>	3 years						
<b>Goals Met:</b>	1, 2, 3, 4, 5						
<b>Benefits:</b>	The national Firewise USA recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level.						
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township may be located within very high and high fuel risk areas for wildfires. Participation in the Firewise Program will assist in the Township's efforts to educate populations on how to increase the ignition resistance of their home sand property.						
<b>Impact on Future Development:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made. This assessment may identify areas which the Township would like to restrict future development.						
<b>Impact on Critical Facilities/Lifelines:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made, which could include relocating various critical facilities or lifelines.						
<b>Impact on Capabilities:</b>	This action will increase wildfire risk reduction and response capabilities for the Township.						
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.						
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)						
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)						
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low				
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th> <th>Evaluation</th> </tr> </thead> <tbody> <tr> <td>No Action</td> <td>The Township does not participate in the Firewise Program</td> </tr> </tbody> </table>	Action	Evaluation	No Action	The Township does not participate in the Firewise Program		
Action	Evaluation						
No Action	The Township does not participate in the Firewise Program						



	Complete half of the program requirements	The Township would not be eligible to participate in the Firewise Program
	Participate in the program, but do not utilize resources	The Township would miss opportunities to strengthen communication and safety skills





## Action 2025-HamptonTwp-14. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Township has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Township events, the Township newsletters, social media, the Township website, and having the materials on display for the public at Township libraries and offices. Consider hiring staff to work directly with socially vulnerable populations. Work with Sussex County to identify and create a list of socially vulnerable populations utilizing Register Ready.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Township. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township will become educated on hazards risks. The Township will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program. It would also assist the Township in identifying where socially vulnerable populations are located in the jurisdiction.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	



	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
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## Action 2025-HamptonTwp-15. Crandon Lake Dam Rehab

<b>Lead Agency:</b>	Township of Stillwater																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Crandon Lake Dam is a Class I High Hazard Dam that is located on Crandon Lake. The dam is owned by the Township of Stillwater. Failure of the dam could result in inundation of forested areas, populated areas local roadways including Upper Dam Road, West Shore Drive, Tulip Trail, and East Shore Drive. Lower Crandon Lake is located South of Crandon Lake, which could further extend impacts from a dam failure Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Township of Stillwater to complete an engineering study of Crandon Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Township of Stillwater will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Crandon Lake as an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Crandon Lake as an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Crandon Lake as an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-HamptonTwp-16. Kemah Lake Dam Rehab

<b>Lead Agency:</b>	Kemah Lake Property Owners Association																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Kemah Lake Dam is a Class I High Hazard Dam that is located on Lake Kemah. The dam is owned by the Kemah Lake Property Owners Association. Failure of the dam could result in inundation of forested areas, populated areas local roadways including Lakeview Drive, Hemlock Woods, Lake Point Circle, and Laketop Drive. Although the dam was last inspected in 2024 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Kemah Lake Property Owners Association to complete an engineering study of Kemah Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Kemah Lake Property Owners Association will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Lake Kemah as an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Kemah as an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Kemah as an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## 13. TOWNSHIP OF HARDYSTON

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Hardyston with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Hardyston, describes who participated in the planning process, assesses Hardyston's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 13.1 HAZARD MITIGATION PLANNING TEAM

The Township of Hardyston identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 13-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 13-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: William Hickerson, OEM Coordinator Address: 149 Wheatsworth Road, Suite A, Hardyston, NJ 07419 Phone Number: (973) 615-5687 Email: whickerson@gmail.com	Name/Title: Carrine Piccolo-Kaufer, Township Manager/Planner Address: 149 Wheatsworth Road, Suite A, Hardyston, NJ 07419 Phone Number: (973) 823-7020 Email: cpiccolo@hardyston.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Joseph Butto, Construction Official Address: 149 Wheatsworth Road, Suite A, Hardyston, NJ 07419 Phone Number: (973) 823-7020 Email: jbutto@hardyston.com	
<b>Additional Contributors</b>	
Name/Title: William Hickerson, OEM Coordinator Method of Participation: Attended Planning Partnership meetings, provided information on previous events, action status updates, and NFIP information; reviewed and approved draft annex.	
Name/Title: Joseph Butto, Construction Official Method of Participation: Reviewed and approved draft annex.	
Name/Title: Carrine Piccolo-Kaufer, Township Manager Method of Participation: Reviewed and approved draft annex.	
Name/Title: Mike Vreeland, Engineer Method of Participation: Planning Partnership meetings.	



## 13.2 COMMUNITY PROFILE

The Township of Hardyston is located in northeastern Sussex County. It is bordered to the north by the Townships of Vernon and Wantage, to the south by the Township of Sparta and Morris County, to the east by Vernon Township and Morris County, and to the west by Lafayette Township. The Township covers an area of approximately 32.6 square miles. There are numerous streams located within the Township and include: Wallkill River, Hamburg Creek, Mud Pond Outlet Stream, Pequannock River, Lake Stockholm Brook, Franklin Pond Creek, Beaver Run, and Black Creek. The following unincorporated communities are located within the Township: Beaver Run, North Church, Big Springs, Rudeville, and Beaver Lake. According to the U.S. Census, the 2020 population for Hardyston was 8,125, a 1.07-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2020 U.S. Census indicates that 5-percent of the population is 5 years of age or younger, 6.5-percent is 65 years of age or older, 5.2-percent is non-English speaking, 6.3-percent is below the poverty threshold, and 5.9-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Township of Hardyston, 27-percent of households earn less than the basic cost of living and are considered socially vulnerable (ALICE 2023).

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 13.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Hardyston performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Hardyston to identify opportunities for integrating mitigation concepts into ongoing Township procedures.



### 13.3.1 Planning and Regulatory Capability and Integration

Table 13-2 summarizes the planning and regulatory tools that are available to Hardyston.

Table 13-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019; State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.); Chapter 62 (Building Construction), adopted in 1972 and revised in 1998 and 2000.	State & Local	Construction Office

How has or will this be integrated with the HMP and how does this reduce risk?

*The building code provides guidance on how to design, build, and operate buildings. Modern building codes lead to major reductions in property losses from natural disasters.*

<b>Zoning/Land Use Code</b>	Yes	State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. in Chapter 185-Zoning Code, adopted in 1972 and revised in 1998 and 2021.	Local	Zoning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. There are several purposes to the code including securing safety from fire, flood, panic, and other natural and man-made disasters.*

<b>Subdivision Code</b>	Yes	P.L.1975, c.291 (C.40:55D-47): 40:55D-37; Chapter 158 (Subdivision of Land) was first adopted in 1972 and amended in 1998	Local	Zoning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act. Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.*

*The purpose of this code is to provide rules, regulations, and standards to guide land subdivision in the Township in order to promote the public health, safety, convenience and general welfare of the Township. It shall be administered to ensure the orderly growth and development, conservation, protection and proper use of land and adequate provision for circulation, utilities and services.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Site Plan Code</b>	Yes	Municipal Land Use Law, NJ Statute 40:27-6.2	Local	Township Council

How has or will this be integrated with the HMP and how does this reduce risk?

*The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.*

<b>Stormwater Management Code</b>	Yes	Title 7 of the NJ Administrative Code, N.J.A.C. 7:8; Chapter 185 (Zoning) of the municipal code	State & Local	Township Council
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Township's code contains a section regarding stormwater management in accordance with NJDEP. It is found in Chapter 185 (Zoning) of the municipal code. The purpose of the code is to establish minimum stormwater management requirements and controls for major development in the Township. Design standards for stormwater management measures should be designed to take into account existing site conditions including environmentally critical areas; wetlands; flood-prone areas; slopes; depth to seasonal high-water table; soil type, permeability, and texture; drainage area and drainage patterns; and the presence of solution-prone carbonate rocks (limestone).*

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*

<b>Growth Management</b>	Yes	State Development & Redevelopment Plan (Plan Endorsement); Zoning Ordinance; Chapter 123-Zoning	Local	Township Council
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*How has or will this be integrated with the HMP and how does this reduce risk?*

*Provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy. New zoning procedures recognize natural hazard areas.*

<b>Environmental Protection Ordinance(s)</b>	No	-	-	-
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*How has or will this be integrated with the HMP and how does this reduce risk?*

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 96 Flood Damage Prevention Ordinance, adopted in July 5, 2011.	Federal, State & Local	Construction Official
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*How has or will this be integrated with the HMP and how does this reduce risk?*

*It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:*

- Protect human life and health;*
- Minimize expenditure of public money for costly flood control projects;*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<ul style="list-style-type: none"> <li>Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;</li> <li>Minimize prolonged business interruptions;</li> <li>Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines and streets and bridges located in areas of special flood hazard;</li> <li>Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;</li> <li>Ensure that potential buyers are notified that property is in an area of special flood hazard; and</li> <li>Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</li> </ul>				
<b>Wellhead Protection</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Emergency Management Ordinance</b>	Yes	Chapter 19 Emergency Management of the municipal code, adopted in 1972 and revised in 1998.	Local	Emergency Management Council
How has or will this be integrated with the HMP and how does this reduce risk? <i>The chapter identified the emergency management coordinator and council.</i>				
<b>Climate Change Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28; adopted in 2014, revised 2019	State	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Several objectives of the plan align with those identified in the HMP update. Portions of the Township are located in the Highlands Regions. The master plan conforms with the Highlands Regional Master Plan and supports elements and objectives of the overall master plan.</i>				
<b>Capital Improvement Plan</b>	Yes	Capital Improvement Plan	Local	Township Manager
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Township's municipal budget outlines the capital budget and improvement program for the next three years. There is a line item for various capital improvements; however, details regarding the improvements is not listed in the 2020 budget.</i>				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	Yes	Township of Hardyston Master Plan, July 2019	State	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<i>Floodplain management is included in the Conservation Plan Element of the Master Plan as an area for restricted development.</i>				
<b>Stormwater Management Plan</b>	Yes	Township's Municipal Stormwater Management Plan was adopted in March 2005	State	Township Council
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Township's Municipal Stormwater Management Plan was adopted in March 2005. The plan documents the strategy for the Township to address stormwater-related impacts. Several goals of the plan aligns with the goals of the HMP update, including protecting public safety and reducing impacts of hazards (e.g., flood and erosion).</i>				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	Yes	Township of Hardyston Master Plan, July 2019	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Open Space Plan is included as an element in the Master Plan, under Open Space and Recreation Element.</i>				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	Yes	Township of Hardyston Master Plan, July 2019	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Transportation plan is included in the Circulation Plan Element of the Master Plan to help manage and facilitate safe travel and traffic throughout the Township.</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Agriculture Plan</b>	Yes	Township of Hardyston Master Plan, July 2019	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Agriculture Plan is a part of the Economic Plan Element of the Master Plan, as the Township's economy has slowly shifted from agriculture and manufacturing based to the expansion of services.</i>				
<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other: Stream Corridor Management Plan</b>	Yes	Township of Hardyston Master Plan, July 2019	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>A part of the Master Plan</i>				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Local Emergency Operation Plan, November 2023.	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>Each county and municipality in the State shall prepare a written Emergency Operations Plan with all appropriate annexes necessary to implement the plan. Each Emergency Operations Plan shall be adopted no later than one year after the State Emergency Planning Guidelines have been adopted by the State Office of Emergency Management and shall be evaluated at such subsequent scheduled review of the State Emergency Operations Plan. L. 1989, c.222, s.19. The Township's Local Emergency Operation Plan was last updated in November of 2023 and addresses hazards of concern and threats seen within the local jurisdiction. For example, the local EOP includes a dam risk assessment on high risk dams within the Township.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Public Health Plan</b>	Yes	Sussex County Community Health Needs Assessment Report, 2021	County	Sussex County; Local OEM Liaison

How has or will this be integrated with the HMP and how does this reduce risk?

*The Sussex County Community Health Needs Assessment was first established in November 2013 by the New Jersey Health Collaborative and updated in 2021. The Assessment Report describes the County's socio-demographic characteristic, health status, and disparities, as well as engaging community members to identify the needs and solutions for greatest impact.*

<b>Other</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

### 13.3.2 Development and Permitting Capability

Table 13-3 summarizes the capabilities of Hardyston to oversee and track development.

Table 13-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	Building Department
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain development permits
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	Yes	The Township completed a buildable land inventory as part of its housing element.
Describe the level of buildout in your jurisdiction.	N/A	There is available area for further build-out and development within the Township.

### 13.3.3 Administrative and Technical Capability

Table 13-4 summarizes potential staff and personnel resources available to Hardyston and their current responsibilities that contribute to hazard mitigation.

Table 13-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Planning Board, in accordance with the State of New Jersey Municipal Land Use Law, upon an applicant's payment of fees, the nine-member Planning Board, reviews site plan applications, subdivision applications, and certain



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		variance requests. The Board also adopts, formulates, amends, and re-examines the Hardyston Township Master Plan and provides the Township Council with recommendations on land use matters.
Zoning Board of Adjustment	Yes	<p>The purpose of the Zoning Department is to enforce the land use ordinances of the Township in a manner which promotes the public health, safety, and general welfare of its residents.</p> <p>In accordance with the State of New Jersey Municipal Land Use Law, upon an applicant's payment of fees, the seven-member Zoning Board of Adjustment, reviews requests for relief from the strict application of the Township Zoning Ordinance, hears appeals of the zoning officer's decisions, and reviews requests for interpretation of the ordinances. The Zoning Board also provides the Township Council with input on zoning ordinances and land use matters.</p>
Planning Department	No	-
Mitigation Planning Committee	Yes	The Office of Emergency Management (OEM) is responsible for preparing and implementing the Township's Emergency Planning Master Plan. The Emergency Planning Master Plan helps prepare the community for man-made and natural disasters. In the event of a disaster, OEM coordinates all the emergency service departments (including Police, Fire, and First Aid), and manages the disaster to ensure that the FEMA command structure and reporting are initiated. The OEM Coordinator also tracks the required training for Township emergency service departments, holds drills, and coordinates events. In addition, OEM develops and implements improvements for "First Responders".
Environmental Board/Commission	Yes	The Clean Communities Program is funded through the New Jersey Department of Environmental Protection and the local government. The program seeks to assist in paying for the pick-up and disposal of unwanted debris left on the roadsides in the community. All materials needed are supplied.
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Hardyston Township Economic Development Advisory Commission - composed of volunteer Township residents, assists in attracting new business and industry as well as retaining established businesses. Their mission is to maintain the quality of life of our residents by stabilizing and expanding our local tax base.
Public Works/Highway Department	Yes	The Department of Public Works is responsible for repair and maintenance of over 48 miles of roadway. Drainage maintenance and repair as well as snow removal are major functions of this department. Some of the other responsibilities of this department include building maintenance, sign maintenance and repair, roadside vegetation maintenance, road sweeping and turf and ball



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		field maintenance at the Hardyston Sports and Recreation Complex facility on Wheatsworth Road.
Construction/Building/Code Enforcement Department	Yes	The Building Department is responsible for enforcement of the NJ Uniform Construction Code, which includes building, plumbing, energy, electrical, elevator and mechanical codes. Building permits and certificates of occupancy are issued through this department.
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management (OEM) is responsible for preparing and implementing the Township's Emergency Planning Master Plan. The Master Plan helps prepare the community for man-made and natural disasters. In the event of a disaster, OEM coordinates all the emergency service departments (including Police, Fire, and First Aid), and manages the disaster to ensure that the FEMA command structure and reporting are initiated. The OEM Coordinator also tracks the required training for Township emergency service departments, holds drills, and coordinates events. In addition, OEM develops and implements improvements for "First Responders".
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	The Department of Public Works is responsible for repair and maintenance of over 48 miles of roadway. Drainage maintenance and repair as well as snow removal are major functions of this department. Some of the other responsibilities of this department include building maintenance, sign maintenance and repair, roadside vegetation maintenance, road sweeping and turf and ball field maintenance at the Hardyston Sports and Recreation Complex facility on Wheatsworth Road.
Mutual aid agreements	Yes	Fire Department, Police and EMS
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Deputy Manager/planner and Construction
Engineers or professionals trained in building or infrastructure construction practices	Yes	Construction
Planners or engineers with an understanding of natural hazards	Yes	Deputy Manager/Planner
Staff with expertise or training in benefit/cost analysis	Yes	Office of Emergency Management
Professionals trained in conducting damage assessments	Yes	Office of Emergency Management
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Zoning Department



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Office of Emergency Management
Grant writers	Yes	Office of Emergency Management
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 13.3.4 Fiscal Capability

Table 13-5 summarizes financial resources available to Hardyston.

Table 13-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	No
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 13.3.5 Education and Outreach Capability

Table 13-6 summarizes the education and outreach resources available to Hardyston.

Table 13-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	No	-





Outreach Resources	Available? (Yes/No)	Comment
Personnel skilled or trained in website development	Yes	The Economic Development Advisory Commission supports the Township's relationship with local businesses and residents by developing and supporting the Township website.
Hazard mitigation information available on your website	Yes	The Township's municipal website has notices and announcements specific to the municipality. They also have a storm preparation checklist on their main page.
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Swift911 and Public-Safety Answering Point (PSAP)
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Township Lake and development associations

### 13.3.6 Community Classifications

Table 13-7 summarizes classifications for community programs available to Hardyston.

Table 13-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	10 (South) and 5 (North)	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	Not certified	Joined program on September 7, 2010
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable





### 13.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 13-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 13-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Medium
Disease Outbreak	Medium
Drought	Medium
Earthquake	Medium
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Medium
Nor’easter	Medium
Severe Weather	Medium
Severe Winter Weather	Medium
Wildfire	Medium

## 13.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 13-1 is responsible for maintaining this information.

### 13.4.1 NFIP Statistics

Table 13-9 summarizes the NFIP policy and claim statistics for Hardyston.

Table 13-9. Hardyston NFIP Summary of Policy and Claim Statistics

# Policies	4
# Claims (Losses)	3
Total Loss Payments	\$60,786.68
# Repetitive Loss Properties (NFIP definition)	0



# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA 2024

### 13.4.2 Flood Vulnerability Summary

Table 13-10 provides a summary of the NFIP program in Hardyston.

Table 13-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Route 23 in Stockholm is closed three times per year typically due to flooding. Coleson Terrace in Stockholm is currently included in mitigation projects to mitigate flood concerns. Coleson Terrace house the Fire Department and EMS facility. Limited flooding in residential homes. Basement flooding during severe storms.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	



NFIP Topic	Comments
What local department is responsible for floodplain management?	Building Department (Construction Official)
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, online FEMA, State, and regional resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Yes, training provided to staff would support the floodplain management program.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Lack of training and staff to cover all respective areas of a program.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	January 10, 1995
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 96
What is the date that your flood damage prevention ordinance was last amended?	July 5, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	This program exceeds the minimum requirements set by the FEMA and the State. The master plan and planning board have a review for flood zones during application process.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Yes, site plan review
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No, and the community has not considered joining CRS at this time.

## 13.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 13-11 through Table 13-13.



Table 13-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	48	36	0	84
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	16	28	1	45
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	27	12	0	39
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 13-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 13-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Anticipated.					

## 13.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Hardyston's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.



### 13.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 13-1 through Figure 13-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Hardyston has significant exposure. The maps show the location of potential new development, where available.

Figure 13-1. Hardyston Flood and Sinkhole Hazard Area Extent and Location

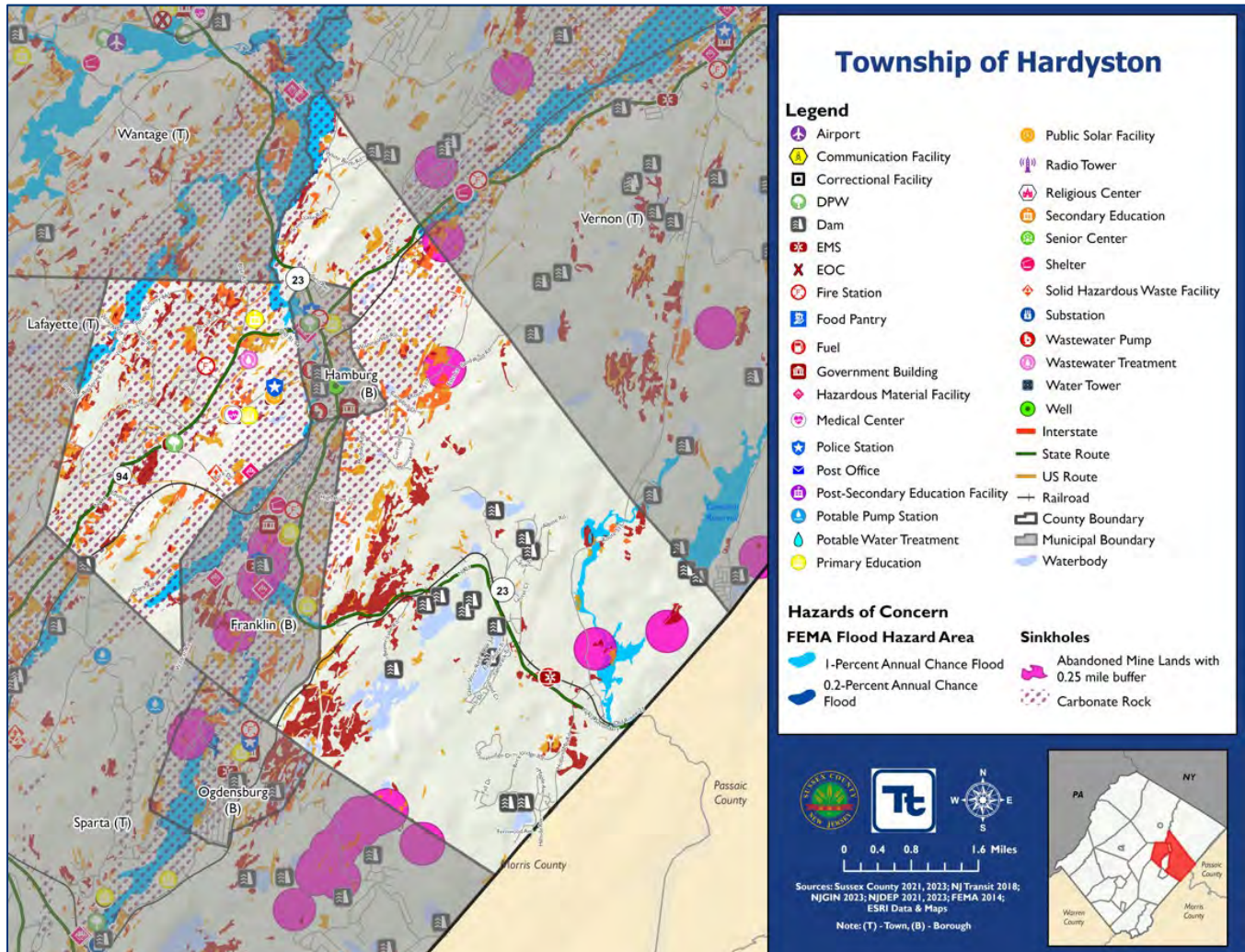




Figure 13-2. Hardyston Hazardous Materials and Wildfire Hazard Area Extent and Location

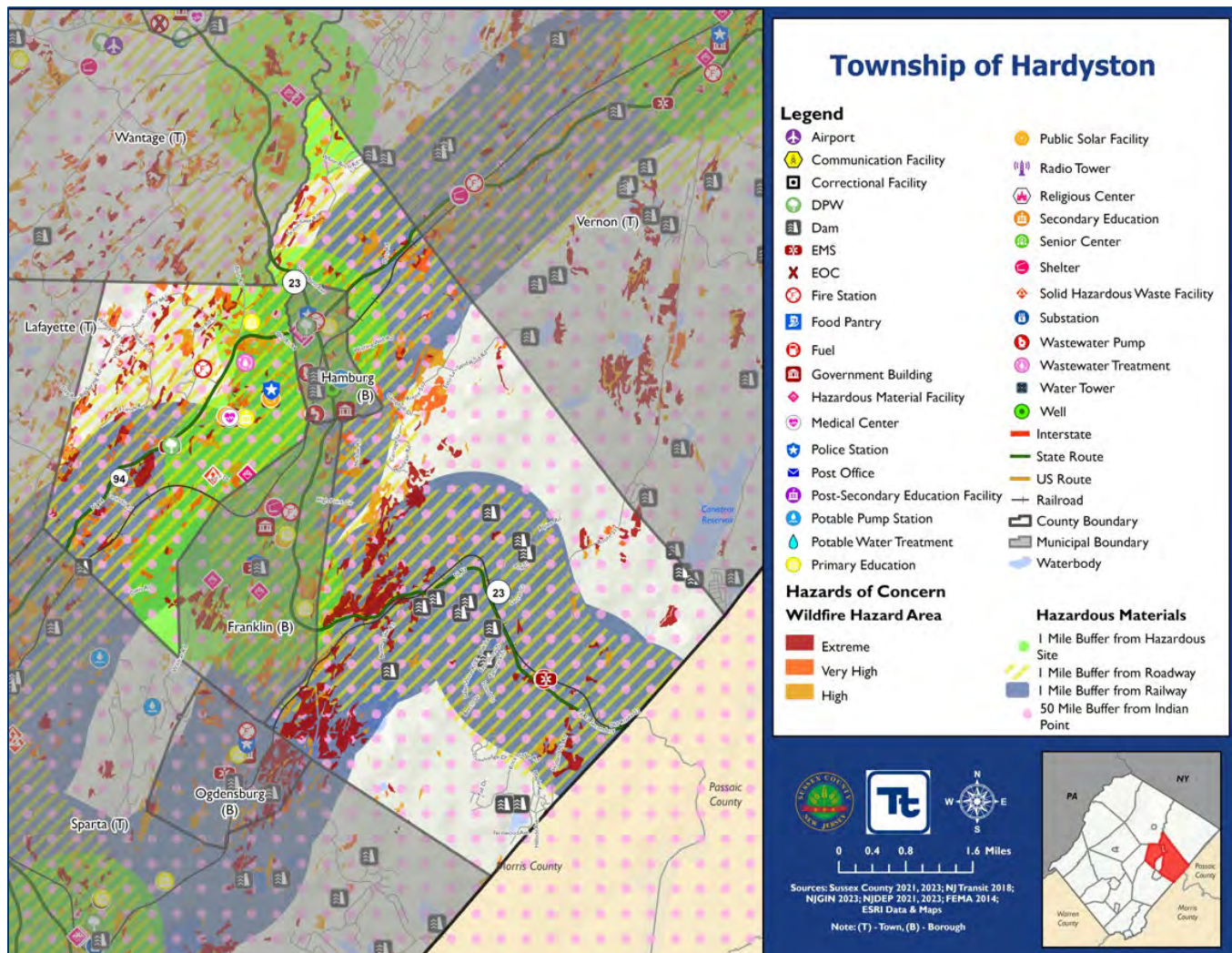
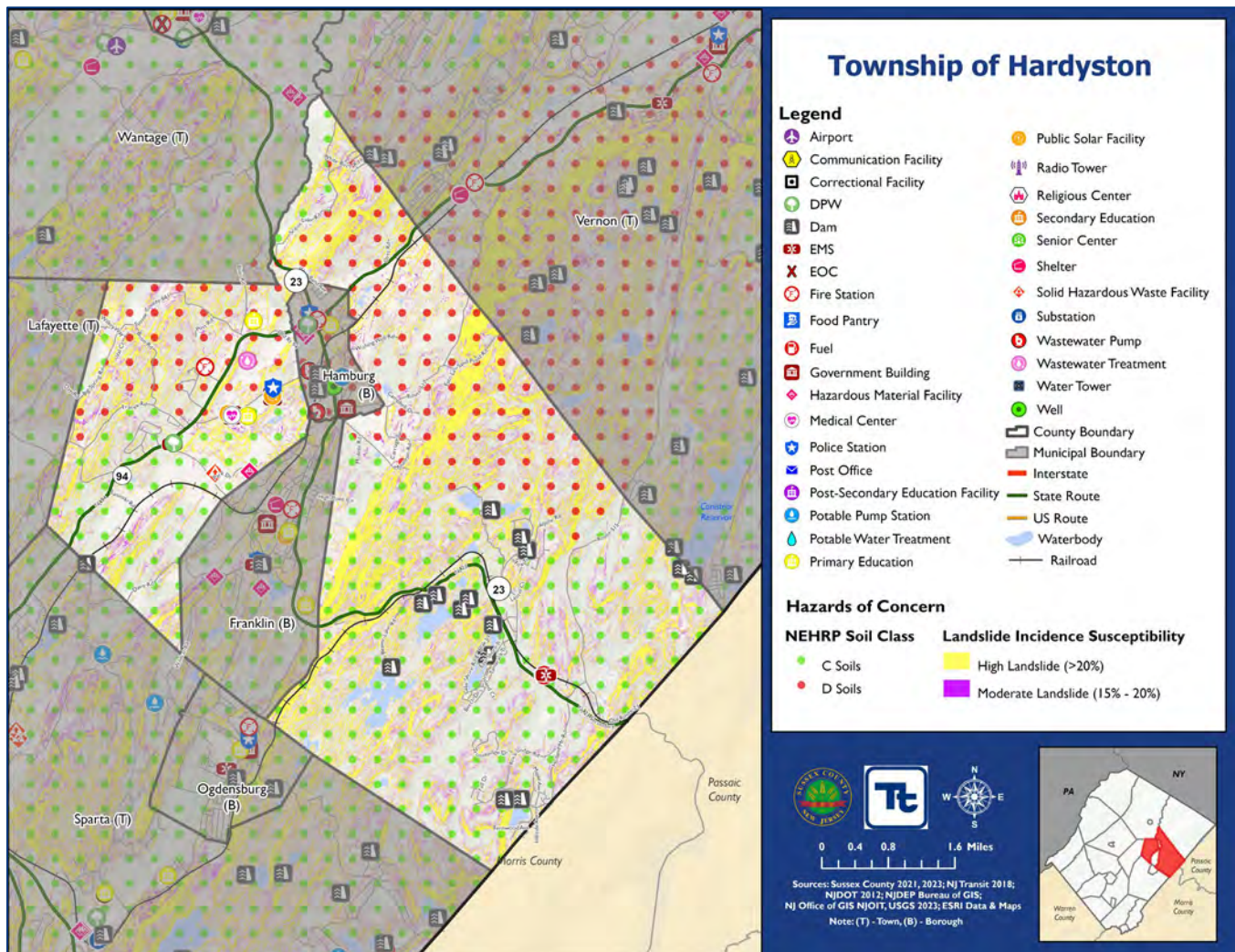


Figure 13-3. Hardyston Landslide and NEHRP Soils Hazard Area Extent and Location Map







### 13.6.2 Hazard Event History

The history of natural and non-natural hazard events in Hardyston is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 13-14 provides details on loss and damage in Hardyston during hazard events since the last hazard mitigation plan update.

Table 13-14. Hazard Event History in Hardyston

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hardyston
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	Purchased equipment for remote access. Installed partitions and purchased PPE for all Township departments. \$18,871.00
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Township wide damage, down trees and powerlines, emergency calls and road closures. Two projects, \$19,287.00 and \$1,928.00
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Township wide snow removal. EMS, Fire and Police emergency calls. Road closures. \$75,870.00
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Although the County was impacted, no damages were recorded within the Township.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

### 13.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for the Township of Hardyston.



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Hardyston reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the following:

- Earthquake hazard should be raised from Low to Medium risk ranking due to past earthquakes. Additionally, the topography of the Township is close to bedrock; neighboring towns experienced cracks in foundation during 4.8 earthquake.
- Wildfire hazard should be raised from Low to Medium risk ranking due to the North Watershed Woods area. There are four lake communities which are surrounded by this forest area susceptible to wildfire events. Additionally, the Township is looking to join the Firewise Program.
- The Township agreed with the remainder of the calculated hazard rankings.

Table 13-15 shows Hardyston's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 13-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Medium
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 13-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.



Table 13-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Canistear Reservoir #1 Dam	Dam	Yes	Yes	2025-HardystonTwp-08	-

Source: Sussex County 2021, 2023; NJGIN 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Hardyston:

- Canistear Reservoir #1 Dam
- Diversion Dam
- Lake Tamarack Dam

### 13.6.4 Identified Issues

After review of Hardyston's hazard event history, hazard rankings, hazard location, and current capabilities, Hardyston identified the following vulnerabilities within the community:

- The Township's DPW fuel station is a critical facility and provides essential services to the community. The station currently does not have a source of backup power, in the event of a power outage the station cannot fuel municipal vehicles. If the station has backup power, then the station can fuel municipal vehicles.
- The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township has over 4,000 acres of State and Newark Watershed woods that in many cases back up to housing developments. This exposes many homes to wildfire and brush fire events.
- Colson Terrace experiences storm drainage issues during periods of rain, causing roadways to flood. Flooded roadways create treacherous conditions for drivers and emergency responders. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- It is unknown if the windows on the southwest side of the municipal building are impact resistant and many of the offices face the road. High winds associated with these hazards can blow debris into windows, potentially endangering those inside the structure, as well as damaging the structure itself, if the windows are not impact resistant.
- The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform



Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Township's ordinance requires update.

- The Emergency Operations Plan (EOP) contains the Continuity of Operations Plan for the Township. During the coronavirus pandemic, new obstacles for continuity of operations were identified and addressed but are not reflected in the Plan. The state requirements for EOP updates were suddenly changed in 2023, from a 4-year update to a 2-year update. The Township updated only the pre-existing hazard annexes due to severe time constraints and funding availability.
- The Canistear Reservoir #1 Dam, a critical infrastructure, is located in the 1- and 0.2-percent flood hazard areas. The Township also has three high-hazard potential dams, including the Canistear Reservoir #1 Dam, Diversion Dam, and Lake Tamarack Dam, within its jurisdiction. These structures have the potential to impact the individuals, structures, and environment downstream.
- It is unknown if the roof of the Hardyston elementary school meets the current snow load standards. This becomes an issue during severe winter weather and high winds associated with severe weather, hurricane, and nor'easter events, as individuals inside the buildings may become impacted should damage to the roof be significant.
- Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:
  - Silver Lake Dam (poor)
  - Fawn Lake Dam (poor)
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- Municipal officials that are responsible for administering the NFIP may not be trained in the requirements of the program and what their role entails. Education and understanding of roles and responsibilities will strengthen the NFIP program in the Township and reduce the risk of flooding impacts through a strong NFIP program.
- The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Township has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Diversion Dam is a Class I High Hazard Dam that is located on the Pequannock River. The dam is owned by the City of Newark Department of Water and Sewer Utilities. Failure of the dam could result in inundation of populated areas, forested areas, and local roadways including Thornlot Road, Sweetfern Driver,





Birchwood Driver, and Sawmill Road. The Canistear Reservoir and Sawmill Pond are located south of the dam which could exacerbate impacts of a dam failure. The dam was last inspected in 2023 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

- Lake Tamarack Dam is a Class I High Hazard Dam that is located on Tamarack Lake. The dam is owned by the Lake Tamarack Association. Failure of the dam could result in inundation of densely populated areas, forested areas, recreational areas, and local roadways including Lake Shore Road East, Lakeshore Road West, Otter Trail, Island Court, and Crescent Court. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Canistear Reservoir #1 Dam is a Class I High Hazard Dam that is located on the Canistear Reservoir. The dam is owned by the City of Newark Department of Water and Sewer Utilities. Failure of the dam could result in inundation of densely populated areas, forested areas, and local roadways including Lower Dam Road, Reservoir Road, and Canistear Road. Cliffwood Lake is located south of the dam which could exacerbate impacts of a dam failure. Although the dam was last inspected in 2023 and found to be in fair condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 13.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 13.7.1 Past Mitigation Action Status

Table 13-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 13.7.2 Additional Mitigation Efforts

Hardyston did not identify any additional mitigation efforts completed since the last HMP. Since the adoption of the County's first HMP, Hardyston has made significant mitigation progress in the following areas:

- Flood Mitigation
- Design and Engineering
- Coordination with other Agencies and NGOs
- Critical Facility upgrades



Table 13-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Hardyston-001	DPW Fuel Station Generator	All	Engineering, DPW, Township Administration	<p><b>Problem:</b> The Township's DPW fuel station is a critical facility and provides essential services to the community. The station currently does not have a source of backup power. In the event of a power outage, the station can fuel municipal vehicles.</p> <p><b>Solution:</b> Determine the proper size permanent generator for the fuel station; once determined, purchase and install generator.</p>	<p>1. No Progress.</p> <p>2. Challenges with funding availability.</p>	<p>1. Include in update</p> <p>2. The Township will explore funding opportunities to conduct a feasibility assessment to determine the proper size generator to power the fuel station during power outages. Once feasible option is determined, the Township will explore funding availability to purchase and install the generator.</p> <p>3. Not applicable</p>
2021-Hardyston-002	Firewise Program	Wildfire	Township Administration, Fire Department	<p><b>Problem:</b> Hardyston Township has over 4,000 acres of State and Newark Watershed woods that in many cases backup to housing developments. This exposes many homes to wildfire and brush fire events.</p> <p><b>Solution:</b> The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up Township hall meetings.</p>	<p>1. No Progress.</p> <p>2. Challenges with funding availability.</p>	<p>1. Include in update</p> <p>2. The Township will explore funding options to follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up Township hall meetings.</p> <p>3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Hardyston-003	Colson Terrace Study	Flood, Hurricane, Nor'easter, Severe Winter Weather, Severe Weather	Township	<b>Problem:</b> Colson Terrace experiences storm drainage issues during periods of rain. This reduces access to this road and the facilities located there, including the EMS and fire departments. Colson Terrace Study  <b>Solution:</b> Conduct an engineering study to determine the drainage issues on Colson Terrace. Once study is complete and solutions are identified, obtain funding to implement best solution to alleviate the drainage issues.	1. In Progress. 2. Engineering has been done to date. Challenges with funding availability to carry out the work.	1. Include in update 2. The Township has completed engineering for the Colson Terrace Study. The Township will work on seeking funding to implement the work identified in the study to mitigate Colson Terrace. 3. Not applicable
2021-Hardyston-004	Engineering Study (roof) on Elementary School	Nor'easter, Severe Winter Weather	School Board Administration	<b>Problem:</b> It is unknown if the roof of the elementary school meets the current snow load standards.  <b>Solution:</b> Conduct engineering study to determine the correct actions for retrofitting the roof of the elementary school to meet current snow load standards. Once completed, identify mitigation actions to correct the problem	1. In Progress 2. The school has started by making some roof repairs, but not replacement.	1. Include in update 2. The Township will work with the elementary school to explore funding options for roof replacement. 3. Not applicable
2021-Hardyston-005	Engineering Study (windows) on Elementary School	Hurricane, Nor'easter, Severe Weather	School Board Administration	<b>Problem:</b> It is unknown if the windows of the elementary school are impact resistant.  <b>Solution:</b> Conduct engineering study to determine the correct actions for retrofitting the gymnasium windows of the elementary school to make them impact resistant. Once completed,	1. Complete. 2. Not applicable	1. Discontinue 2. Not applicable 3. Completed.



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				identify mitigation actions to correct the problem.		
2021-Hardyston-006	Engineering Study on Municipal Building	Hurricane, Nor'easter, Severe Weather	Township Administration	<p><b>Problem:</b> It is unknown if the windows on the southwest side of the municipal building are impact resistant.</p> <p><b>Solution:</b> Conduct engineering study to determine the correct actions for retrofitting the windows on the southwest side of the municipal building to make them impact resistant. Once completed, identify mitigation actions to correct the problem.</p>	<p>1. No Progress.</p> <p>2. Challenges with funding availability.</p>	<p>1. Include in update</p> <p>2. The Township will explore funding options to harden windows at the municipal building located on 149 Wheatsworth rd. from debris during hazard events.</p> <p>3. Not applicable</p>
2021-Hardyston-007	Enhance Municipal Buildings	Disease Outbreak	Township Administration	<p><b>Problem:</b> Due to the current COVID-19 pandemic, the Township has identified several areas in their buildings that could be enhanced to reduce exposure to bacteria and viruses.</p> <p><b>Solution:</b> The Township will upgrade the bathroom facilities in the Township hall, EMS, police station, and fire department to touchless toilets and sinks. This will reduce exposure to germs and provide safer environments for municipal staff.</p>	<p>1. Completed.</p> <p>2. Bathrooms in both fire houses are to be upgraded by the end of 2024. Township was unable to upgrade the rest of the bathrooms due to lack of funding availability.</p>	<p>1. Discontinue.</p> <p>2. Not applicable</p> <p>3. Completed</p>
2021-Hardyston-008	Develop Debris Management Plan	Flood, Hurricane, Nor'easter, Severe Winter Weather, Wildfire,	OEM, Public Works	<p><b>Problem:</b> The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.</p>	<p>1. No Progress.</p> <p>2. Challenges with funding availability.</p>	<p>1. Include in update</p> <p>2. The Township will explore funding options to kick off the development of a debris management plan. The debris management plan will assist the Township in facilitating a response and recovery after a</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Severe Weather		<b>Solution:</b> The Township will develop a debris management plan that will assist the municipality when they need to facilitate response and recovery after a debris-causing incident. The plan will provide direction to facilitate and coordinate the management of debris following a disaster.		debris-causing incident. The plan will also provide guidance on coordinating management of debris following a disaster. 3. Not applicable
2021-Hardyston-009	Update Flood Damage Prevention Ordinance	Flood	Township Administration, Construction Official	<b>Problem:</b> The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meeting New Jersey's minimum requirement.  <b>Solution:</b> The Township will update its flood damage prevention ordinance to meet the New Jersey requirement of one foot of freeboard.	1. No Progress. 2. Challenges with funding availability and staff capabilities.	1. Include in update 2. After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance. 3. Not applicable
2021-Hardyston-010	Update EOP to Include Covid Strategies	All Hazards	OEM	<b>Problem:</b> The Emergency Operations Plan contains the Continuity of Operations Plan for the Township. During the coronavirus pandemic, new obstacles for continuity of operations were identified and addressed but are not reflected in the Plan.  <b>Solution:</b> The Township will update the Emergency Operations Plan to include discussion of lessons learned and strategies developed during the coronavirus pandemic to maintain continuity of government services during and following disaster events.	1. No Progress. 2. The EOP was updated in 2023, next update will be 2025 and the Township will work to include pandemic as an annex in the next update.	1. Include in update 2. The Township will plan to update the Emergency Operations Plan in 2025 to include discussion of lessons learned and strategies developed during the coronavirus pandemic to maintain continuity of government services during and following disaster events. 3. Not applicable



### 13.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Hardyston participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Hardyston would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 13-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 13-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.





Table 13-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X		X		X	X
Disease Outbreak	X	X		X			X			X
Drought	X	X		X			X			X
Earthquake	X	X		X	X		X			X
Flood	X	X		X	X		X		X	X
Geological Hazards	X	X		X	X		X			X
Hazardous Materials	X	X		X	X		X			X
Hurricane	X	X	X	X		X	X		X	X
Infestation	X			X	X		X			X
Nor'easter	X	X	X	X	X	X	X		X	X
Severe Weather	X	X	X	X	X	X	X		X	X
Severe Winter Weather	X	X		X	X		X			X
Wildfire	X	X		X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 13-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-HardystonTwp-01	Backup Generator for Fuel Station	1	0	1	1	1	0	0	1	1	1	1	1	1	1	11	High
2025-HardystonTwp-02	Join the Firewise Program	1	1	1	1	1	0	1	1	1	1	1	0	0	0	10	Medium
2025-HardystonTwp-03	Coleson Terrace Study	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-HardystonTwp-04	Municipal Building Window Hardening	1	1	1	1	1	0	0	0	0	1	1	1	0	1	9	Medium
2025-HardystonTwp-05	Disaster Debris Management Plan	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
2025-HardystonTwp-06	Code Coordinated Ordinance	1	1	1	1	1	0	0	1	1	1	1	1	1	1	12	High
2025-HardystonTwp-07	Update Continuity of Operations	1	0	1	1	1	0	0	1	1	1	1	1	1	1	11	High
2025-HardystonTwp-08	High Hazard Dam Mitigation	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
2025-HardystonTwp-09	Snow Load Improvements at Hardyston Elementary School	1	0	1	1	1	0	0	0	1	1	1	1	1	1	10	Medium
2025-HardystonTwp-10	Dam Repair	1	1	1	1	1	1	1	1	0	1	1	1	1	1	13	High
2025-HardystonTwp-11	Substantial Damage Procedures	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-HardystonTwp-12	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	0	1	0	11	High



Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-HardystonTwp-13	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-HardystonTwp-14	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-HardystonTwp-15	Certified Floodplain Manager Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-HardystonTwp-16	Diversion Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-HardystonTwp-17	Lake Tamarack Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-HardystonTwp-18	Canistear Reservoir #1 Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

*Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).*



## Action 2025-HardystonTwp-01. Backup Generator for Fuel Station

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input checked="" type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input checked="" type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input checked="" type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input checked="" type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township's Public Works fuel station is a critical facility and provides essential services to the community. The station currently does not have a source of backup power, in the event of a power outage the station cannot fuel municipal vehicles. If the station has backup power, then the station can fuel municipal vehicles.																
<b>Description of the Solution:</b>	The Township will explore funding opportunities to conduct a feasibility assessment to determine the proper size generator to power the fuel station during power outages. Once feasible option is determined, the Township will explore funding availability to purchase and install the generator as well as perform maintenance on the generator as needed. The Public Works Department will be responsible for the needed maintenance.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5, 6, 7																
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.																
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Problem persists</td></tr><tr><td>Microgrid</td><td>Costly and difficult to implement</td></tr><tr><td>Solar panels and battery backup</td><td>Solar power is unlikely to be able to provide battery power for extended power failure events.</td></tr></table>	Action	Evaluation	No Action	Problem persists	Microgrid	Costly and difficult to implement	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.								
Action	Evaluation																
No Action	Problem persists																
Microgrid	Costly and difficult to implement																
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.																



## Action 2025-HardystonTwp-02. Join the Firewise Program

<b>Lead Agency:</b>	Fire Department																
<b>Supporting Agencies:</b>	Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township has over 4,000 acres of State and Newark Watershed woods that in many cases back up to housing developments. This exposes many homes to wildfire and brush fire events.																
<b>Description of the Solution:</b>	The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up outreach meetings.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal Budget																
<b>Implementation Timeline:</b>	3 years																
<b>Goals Met:</b>	1, 2, 3, 4, 5																
<b>Benefits:</b>	The national Firewise USA recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level.																
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township may be located within very high and high fuel risk areas for wildfires. Participation in the Firewise Program will assist in the Township's efforts to educate populations on how to increase the ignition resistance of their home and property.																
<b>Impact on Future Development:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made. This assessment may identify areas which the Township would like to restrict future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made, which could include relocating various critical facilities or lifelines.																
<b>Impact on Capabilities:</b>	This action will increase wildfire risk reduction and response capabilities for the Township.																
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input checked="" type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>The Township does not participate in the Firewise Program</td></tr></table>	Action	Evaluation	No Action	The Township does not participate in the Firewise Program												
Action	Evaluation																
No Action	The Township does not participate in the Firewise Program																



	Complete half of the program requirements	The Township would not be eligible to participate in the Firewise Program
	Participate in the program, but do not utilize resources	The Township would miss opportunities to strengthen communication and safety skills





## Action 2025-HardystonTwp-03. Colson Terrace Flood Mitigation

<b>Lead Agency:</b>	Township Administration		
<b>Supporting Agencies:</b>	Public Works		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Colson Terrace experiences storm drainage issues during periods of rain, causing roadways to flood. Flooded roadways create treacherous conditions for drivers and emergency responders. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	The Township has completed engineering for the Colson Terrace Study. The Township will work on seeking funding to implement the work identified in the study to mitigate Colson Terrace. Public Works will implement the project.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	Township Budget, FEMA BRIC and HMGP		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Township on Vernon Crossing Road caused by drainage issues.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will protect socially vulnerable populations, such as the elderly, residing in the Colson Terrace area by providing safe access to and from residential buildings during a flood event.		
<b>Impact on Future Development:</b>	This action protects future development planned in or nearby Colson Terrace and ensures new development will have safe access.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects critical facilities, such as EMS and fire departments, and lifelines, such as evacuation roadway, from flooding impacts.		
<b>Impact on Capabilities:</b>	This action would ensure the standards of operation are upheld for EMS and fire departments during flood events.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rain events make traversing roadways difficult, and often times unsafe.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Problem persists	
	Raise the roadway	Costly, not an option.	
	Remove the roadway and critical facilities.	Costly, not publicly accepted.	



## Action 2025-HardystonTwp-04. Municipal Building Window Hardening

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	It is unknown if the windows on the southwest side of the municipal building are impact resistant and many of the offices face the road. High winds associated with these hazards can blow debris into windows, potentially endangering those inside the structure, as well as damaging the structure itself, if the windows are not impact resistant.																
<b>Description of the Solution:</b>	The Township will explore funding options to harden windows at the municipal building located on 149 Wheatsworth Road from debris damage during hazardous wind events.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, School Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 4																
<b>Benefits:</b>	This action will protect the municipal building from wind damage associated with severe weather, severe winter weather, hurricanes, nor'easters, and any debris which the winds may elevate.																
<b>Impact on Socially Vulnerable Populations:</b>	The municipal building may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect the municipal building which is a critical facility for Township daily operations and safety of staff who may be active during emergency response.																
<b>Impact on Capabilities:</b>	This action will ensure the safety of staff for the Township, especially during emergency events that results in debris damage.																
<b>Climate Change Considerations:</b>	This action takes into consideration the climate change impacts on the severity and frequency of storm events which may cause destructive debris.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Problem persists</td></tr><tr><td>Build new municipal building.</td><td>Costly, unnecessary.</td></tr><tr><td>Build small backup office facility.</td><td>Costly, lack of funds to do so.</td></tr></table>	Action	Evaluation	No action	Problem persists	Build new municipal building.	Costly, unnecessary.	Build small backup office facility.	Costly, lack of funds to do so.								
Action	Evaluation																
No action	Problem persists																
Build new municipal building.	Costly, unnecessary.																
Build small backup office facility.	Costly, lack of funds to do so.																



## Action 2025-HardystonTwp-05. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>			Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available						
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-HardystonTwp-06. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator								
<b>Supporting Agencies:</b>	Construction Official, Township Administration, NFIP State Coordinator, FEMA Regional Office								
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>								
<b>Description of the Problem:</b>	<p>A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Township's ordinance requires update.</p>								
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.</p>								
<b>Estimated Cost:</b>	Staff time								
<b>Potential Funding Sources:</b>	Municipal budget								
<b>Implementation Timeline:</b>	Within 5 years								
<b>Goals Met:</b>	1, 2, 5,7								
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>								
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>								
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>								
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>								
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>								
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>								
<b>Mitigation Category</b>	<div><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>								
<b>CRS Category</b>	<div><input checked="" type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>								
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low						
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem exists</td></tr><tr><td>Modify existing flood damage prevention ordinance</td><td>Time intensive</td></tr></table>	Action	Evaluation	No Action	Current problem exists	Modify existing flood damage prevention ordinance	Time intensive		
Action	Evaluation								
No Action	Current problem exists								
Modify existing flood damage prevention ordinance	Time intensive								



	Leave NFIP	Residents lose flood insurance coverage
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## Action 2025-HardystonTwp-07. Update Continuity of Operations

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, ESF Coordinators		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Emergency Operations Plan (EOP) contains the Continuity of Operations Plan for the Township. During the coronavirus pandemic, new obstacles for continuity of operations were identified and addressed but are not reflected in the Plan. The state requirements for EOP updates were suddenly changed in 2023, from a 4-year update to a 2-year update. The Township updated only the pre-existing hazard annexes due to severe time constraints and funding availability.		
<b>Description of the Solution:</b>	The Township will plan to update the Emergency Operations Plan in 2025 to include discussion of lessons learned and strategies developed during the coronavirus pandemic to maintain continuity of government services during and following disaster events.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Township budget, EMPG		
<b>Implementation Timeline:</b>	1 year		
<b>Goals Met:</b>	1, 2, 6		
<b>Benefits:</b>	The EOP details what the Township will do during a disaster (incident command implementation, command center location and activities, specific plans by department, etc.). Updating the EOP will permit the Township to integrate new plans, policies, capabilities, and hazard assessments.		
<b>Impact on Socially Vulnerable Populations:</b>	The section overview portion of the EOP covers a discussion of a variety of topics, including population distribution and locations, including any concentrated populations of individuals with disabilities, others with access and functional needs, or individuals with limited English proficiency.		
<b>Impact on Future Development:</b>	Future development will be protected by the actions which OEM performs following the EOP.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect critical facilities and lifelines by ensuring continuity of operations for these facilities are maintained during and following a disaster event. The section overview portion of the EOP covers a discussion of a variety of topics, including vulnerable critical facilities (e.g. nursing homes, schools, hospitals, infrastructure).		
<b>Impact on Capabilities:</b>	This action enhances EMS and first responders' capabilities by ensuring standards of operation are upheld during and following a disaster event.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. As impacts from climate change are increasingly felt, the contents in an EOP, including in the basic plan and any annexes, may need to be updated.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Problem persists	
	Utilize a neighboring jurisdictions COOP	Not accurate, not locally specific.	
	Rely on federal response and recovery	Not reliable, not an option	





## Action 2025-HardystonTwp-08. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM																
<b>Supporting Agencies:</b>	NJDEP, Dam Owners																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Canistear Reservoir #1 Dam, a critical infrastructure, is located in the 1- and 0.2-percent flood hazard areas. The Township also has three high-hazard potential dams, including the Canistear Reservoir #1 Dam, Diversion Dam, and Lake Tamarack Dam, within its jurisdiction. These structures have the potential to impact the individuals, structures, and environment downstream.																
<b>Description of the Solution:</b>	The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM. The Township will conduct public outreach to the high hazard dam owners and provide examples of mitigation actions to protect these structures from dam failure.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5, 7																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Township will be unaware of any safety concerns for the dam or its condition</td></tr><tr><td>Utilize information from NJDEP</td><td>Owners may not be required to submit a safety plan to the State</td></tr><tr><td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr></table>	Action	Evaluation	No Action	Township will be unaware of any safety concerns for the dam or its condition	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory								
Action	Evaluation																
No Action	Township will be unaware of any safety concerns for the dam or its condition																
Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State																
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory																



## Action 2025-HardystonTwp-09. Snow Load Improvements at Hardyston Elementary School

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Township Administration, School Board Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	It is unknown if the roof of the Hardyston Elementary School meets the current snow load standards. This becomes an issue during severe winter weather and high winds associated with severe weather, hurricane, and nor'easter events, as individuals inside the buildings may become impacted should damage to the roof be significant.																
<b>Description of the Solution:</b>	The Township Engineer will work with the Hardyston Elementary School to evaluate the roof to determine the necessary improvements or replacements needed for the roof and explore funding options. After evaluation of improvements and funding availability, the Township Engineer and Administration will work with the Hardyston Elementary School to conduct the necessary roof replacement.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, School Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 7																
<b>Benefits:</b>	This action will protect Hardyston Elementary School's roof from collapse from snow loads associated with severe winter weather and nor'easters.																
<b>Impact on Socially Vulnerable Populations:</b>	Hardyston Elementary School may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect Hardyston Elementary School from suffering a potential roof collapse.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	While climate change may decrease the occurrence of snow events, it may result in an increase in the severity of major snowstorms and nor'easter events, which may contribute to the likelihood of a roof collapse. This action will increase the safety of the building to withstand these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Problem persists</td></tr><tr><td>Remove elementary school</td><td>Costly, not an option.</td></tr><tr><td>Rebuild entire school</td><td>Costly, not an option.</td></tr></table>	Action	Evaluation	No action	Problem persists	Remove elementary school	Costly, not an option.	Rebuild entire school	Costly, not an option.								
Action	Evaluation																
No action	Problem persists																
Remove elementary school	Costly, not an option.																
Rebuild entire school	Costly, not an option.																



## Action 2025-HardystonTwp-10. Dam Repair

<b>Lead Agency:</b>	Engineer		
<b>Supporting Agencies:</b>	Dam Managers, NJDEP Bureau of Dam Safety, County Engineer		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	<p>Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:</p> <ul style="list-style-type: none"> <li>Silver Lake Dam (poor)</li> <li>Fawn Lake Dam (poor)</li> </ul>		
<b>Description of the Solution:</b>	<p>The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.</p>		
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected		
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 7		
<b>Benefits:</b>	Dam failure will be avoided, which will reduce the risk of harm to people and property downstream.		
<b>Impact on Socially Vulnerable Populations:</b>	<p>The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.</p>		
<b>Impact on Future Development:</b>	Future development downstream of dams will also be protected from dam failure.		
<b>Impact on Critical Facilities/Lifelines:</b>	Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	<p>Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.</p>		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Problem persists	
	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access	



	Remove all dams	Without proper analysis, dam removal may increase flooding risk
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## Action 2025-HardystonTwp-11. Substantial Damage Procedures

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Public Works, Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP) </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP) </div> </div>		
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI) </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES) </div> </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements





## Action 2025-HardystonTwp-12. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Building Department, FEMA, Sussex County		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Municipal officials that are responsible for administering the NFIP may not be trained in the requirements of the program and what their role entails. Education and understanding of roles and responsibilities will strengthen the NFIP program in the Township and reduce the risk of flooding impacts through a strong NFIP program.		
<b>Description of the Solution:</b>	Where feasible, the Township will work with the County to have Code staff attend trainings at FEMA's EMI in Emmitsburg Maryland for NFIP Basics and the Intermediate Floodplain management course (E0273). Where not feasible, officials will attend virtual trainings and review available resources from FEMA and ASFPM at the ASFPM ( <a href="https://www.floods.org/">https://www.floods.org/</a> ) website.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 7		
<b>Benefits:</b>	Providing Township staff and officials to become further educated on floodplain management practices and standards can aid in the development of plans and procedures in a way that is conscious of the flood hazard.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	Officials that attend trainings will have a more confident understanding of floodplain management principles and the basics of NFIP requirements and standards.		
<b>Climate Change Considerations:</b>	Climate change is likely to result in stronger and more frequent rainfall events that will contribute to increased flood risk		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Problem persists	
	Leave the NFIP	Not an option, loss of insurance premiums for residents.	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-HardystonTwp-13. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Township has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Township events, the Township newsletters, social media, the Township website, and having the materials on display for the public at Township libraries and offices. Consider hiring staff to work directly with socially vulnerable populations. Work with Sussex County to identify and create a list of socially vulnerable populations utilizing Register Ready.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Township. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township will become educated on hazards risks. The Township will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program. It would also assist the Township in identifying where socially vulnerable populations are located in the jurisdiction.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	



	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
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## Action 2025-HardystonTwp-14. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Planning Board, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.		
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 2 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.		
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	
	Wait for information from the State on flood-damaged properties	May be a delay in notice	



## Action 2025-HardystonTwp-15. Certified Floodplain Manager Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Engineering, Building Department, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-HardystonTwp-16. Diversion Dam Rehab

<b>Lead Agency:</b>	City of Newark Department of Water and Sewer Utilities																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Diversion Dam is a Class I High Hazard Dam that is located on the Pequannock River. The dam is owned by the City of Newark Department of Water and Sewer Utilities. Failure of the dam could result in inundation of populated areas, forested areas, and local roadways including Thornlot Road, Sweetfern Driver, Birchwood Driver, and Sawmill Road. The Canistear Reservoir and Sawmill Pond are located south of the dam which could exacerbate impacts of a dam failure. The dam was last inspected in 2023 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the City of Newark Department of Water and Sewer Utilities to complete an engineering study of Diversion Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the City of Newark Department of Water and Sewer Utilities will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr></table>	Action	Evaluation	No Action	Current problem continues												
Action	Evaluation																
No Action	Current problem continues																





	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of the Pequannock River as water supply resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## Action 2025-HardystonTwp-17. Lake Tamarack Dam Rehab

<b>Lead Agency:</b>	Lake Tamarack Association																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Lake Tamarack Dam is a Class I High Hazard Dam that is located on Tamarack Lake. The dam is owned by the Lake Tamarack Association. Failure of the dam could result in inundation of densely populated areas, forested areas, recreational areas, and local roadways including Lake Shore Road East, Lakeshore Road West, Otter Trail, Island Court, and Crescent Court. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Lake Tamarack Association to complete an engineering study of Lake Tamarack Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Lake Tamarack Association will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Tamarack Lake as an environmental and recreational resource.</td></tr></table>			Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Tamarack Lake as an environmental and recreational resource.								
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Tamarack Lake as an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-HardystonTwp-18. Canistear Reservoir #1 Dam Rehab

<b>Lead Agency:</b>	City of Newark Department of Water and Sewer Utilities																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Canistear Reservoir #1 Dam is a Class I High Hazard Dam that is located on the Canistear Reservoir. The dam is owned by the City of Newark Department of Water and Sewer Utilities. Failure of the dam could result in inundation of densely populated areas, forested areas, and local roadways including Lower Dam Road, Reservoir Road, and Canistear Road. Cliffwood Lake is located south of the dam which could exacerbate impacts of a dam failure. Although the dam was last inspected in 2023 and found to be in fair condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the City of Newark Department of Water and Sewer Utilities to complete an engineering study of Canistear Reservoir #1 Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the City of Newark Department of Water and Sewer Utilities will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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Action	Evaluation																
No Action	Current problem continues																



	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of the Canistear Reservoir as a water supply resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## 14. BOROUGH OF HOPATCONG

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Borough of Hopatcong with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Hopatcong, describes who participated in the planning process, assesses Hopatcong's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 14.1 HAZARD MITIGATION PLANNING TEAM

The Borough of Hopatcong identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Borough departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 14-1 summarizes Borough officials who participated in the development of the annex and in what capacity. Additional documentation of the Borough's planning activities through Planning Partnership meetings is included in Volume I.

Table 14-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Wade Crowley / EMC Address: 111 River Styx Road Hopatcong, NJ 07843 Phone Number: (973) 390-0988 Email: wcrowley@hopatcong.org	Name/Title: Ron Tappan / Borough Administrator Address: 111 River Styx Road Hopatcong, NJ 07843 Phone Number: (973) 770-1200 Email: rtappan@hopatcong.org
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: John Ruschke / Engineer Address: 412 Mount Kimble Avenue, Morristown, NJ 7960 Phone Number: (908) 238-5000 Email: john.ruschke@mottmac.com	
<b>Additional Contributors</b>	
Name/Title: Wade Crowley / EMC Method of Participation: Provided information on previous events, action status updates, permit information, and NFIP information. Reviewed final draft annex and completed sign off sheet.	
Name/Title: Bill O'Connor / Construction Official Method of Participation: Reviewed final draft annex and completed sign off sheet.	
Name/Title: Pat Mason / Public Works Superintendent Method of Participation: Reviewed final draft annex and completed sign off sheet.	
Name/Title: Valerie Egan / Municipal Clerk Method of Participation: Reviewed final draft annex and completed sign off sheet.	
Name/Title: Marie Galate / Mayor Method of Participation: Reviewed final draft annex and completed sign off sheet.	





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Name/Title: John Ruschke / Engineer

Method of Participation: Reviewed final draft annex and completed sign off sheet.

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Name/Title: Meghan McCluskey / Police Chief

Method of Participation: Reviewed final draft annex and completed sign off sheet.

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Name/Title: Joseph Vuich / Planner

Method of Participation: Reviewed final draft annex and completed sign off sheet.

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## 14.2 COMMUNITY PROFILE

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Hopatcong Borough is located in southwestern Sussex County. It is bordered to the north by Sparta Township, to the east and south by Morris County, and to the west by Byram Township and Stanhope Borough. The Borough has a total area of 12.4 square miles. The following unincorporated communities are located within the Borough: Northwood, Byram Cover, Sperry Springs, Bonaparte Landing, Hopatcong Hills, and Hopatcong Heights. Streams in the Borough include: the Musconetcong River which makes up the eastern border of the Borough, and Lubbers Run. A portion of Lake Hopatcong is found in eastern Hopatcong Borough. According to the U.S. Census, the 2020 population for Hopatcong was 14,362, a 5.1-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 9.2-percent of the population is 5 years of age or younger, 7.9-percent is 65 years of age or older, 17.6-percent is non-English speaking, 8.6-percent is below the poverty threshold, and 9.7-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Borough of Hopatcong, 23-percent of households earn less than the basic cost of living and are considered socially vulnerable (ALICE 2023).

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 14.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Hopatcong performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events



For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Hopatcong to identify opportunities for integrating mitigation concepts into ongoing Borough procedures.

### 14.3.1 Planning and Regulatory Capability and Integration

Table 14-2 summarizes the planning and regulatory tools that are available to Hopatcong.

Table 14-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019; State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)	State & Local	Construction Official
How has or will this be integrated with the HMP and how does this reduce risk? <i>The building code provides guidance on how to design, build, and operate buildings. Modern building codes lead to major reductions in property losses from natural disasters.</i>				
<b>Zoning/Land Use Code</b>	Yes	State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49; Chapter 242- Zoning.	Local	Zoning Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan.</i>				
<b>Subdivision Code</b>	Yes	P.L.1975, c.291 (C.40:55D-47): 40:55D-37; Chapter 209- Subdivision of Land.	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.</i>				
<b>Site Plan Code</b>	Yes	Municipal Land Use Law, NJ Statute 40:27-6.2; Chapter 191- Site Plan Review.	State, County & Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.

<b>Stormwater Management Code</b>	Yes	Title 7 of the NJ Administrative Code, N.J.A.C. 7:8; Chapter 242 – Zoning, Stormwater Management Requirements.	State & Local	Engineering Department
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How has or will this be integrated with the HMP and how does this reduce risk?

The Borough's code contains a section regarding stormwater management in accordance with NJDEP. It is found in Chapter 242 (Zoning) of the municipal code. The purpose of the code is to establish minimum stormwater management requirements and controls for major development in the Borough. Design standards for stormwater management measures should be designed to take into account existing site conditions including environmentally critical areas; wetlands; flood-prone areas; slopes; depth to seasonal high-water table; soil type, permeability, and texture; drainage area and drainage patterns; and the presence of solution-prone carbonate rocks (limestone).

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.

The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.

The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.

For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*

<b>Growth Management</b>	Yes	Zoning Ordinance; Plan Endorsement Process via the State Development & Redevelopment Plan	State	Administration
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*How has or will this be integrated with the HMP and how does this reduce risk?*

*Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy. The Administration is responsible for these ordinances, which are due to Highlands.*

<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 143-Lawn Fertilizers, October 3, 1999; Chapter 147-Littering, August 4, 1983; Chapter 154-Natural Area Preserve, May 5, 1994.	Local	Code Official
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*How has or will this be integrated with the HMP and how does this reduce risk?*

*The purpose of chapter 143 is regulates lawn fertilizers to mitigate contaminates in surface water from entering the lakes and parks. This chapter improves and maintains surface water quality and lake resources to protect public health.*

*The purpose of chapter 147 is defining liter for further regulations on contaminates from entering waterways and greenspaces to protect public health.*

*The purpose of chapter 154 is to establish the preservation of land use for natural area to promote public health, prosperity, and general welfare.*

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 124-Floodplain Management	Federal, State & Local	Construction Official or Designee
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*How has or will this be integrated with the HMP and how does this reduce risk?*

*It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:*

- Protect human life and health;*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<ul style="list-style-type: none"> <li>Minimize expenditure of public money for costly flood control projects;</li> <li>Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;</li> <li>Minimize prolonged business interruptions;</li> <li>Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;</li> <li>Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;</li> <li>Ensure that potential buyers are notified that property is in an area of special flood hazard;</li> <li>Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</li> </ul> <p><i>The Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.</i></p>				
<b>Wellhead Protection</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Emergency Management Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Change Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other: Municipal Separate Storm Sewer System (MS4)</b>	Yes	Chapter 203-Storm Sewer System	Local	Engineering Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The purpose of chapter 203 is to prohibit the spilling, disposal, or dumping of materials other than stormwater to the municipal separate storm sewer system (MS4) operated by the Borough.</i></p>				
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	2018 Revised NJ Statute 40:27-2; Borough of Hopatcong Highlands Area Master Plan Element, 2012	Local	Land Use Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Several objectives of the plan align with those identified in the HMP update. Portions of the Borough are in the Highlands Regions. The Borough is included in the Highlands Regional Master Plan and supports elements and objectives of the overall master plan.</i></p>				
<b>Capital Improvement Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Stormwater Management Plan</b>	Yes	Municipal Stormwater Management Plan, March 2005	Local	Public Works

How has or will this be integrated with the HMP and how does this reduce risk?

*These rules set forth the required components of regional and municipal stormwater management plans and establish the stormwater management design and performance standards for new (proposed) development. The design and performance standards for new development include groundwater recharge, runoff quantity controls, and runoff quality controls. The rules emphasize, as a primary consideration, the use of nonstructural stormwater management techniques including minimizing disturbance, minimizing impervious surfaces, minimizing the use of stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater runoff quantity control, stormwater runoff quality control, and the prohibition of major development to be located within or to discharge runoff from the major development into a 300-foot riparian zone without prior authorization from the Department under the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13.*

<b>Stormwater Pollution Prevention Plan</b>	Yes	Stormwater Pollution Prevention Plan, revised October 18, 2021	Local	Yes
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Borough of Hopatcong Stormwater Pollution Plan (2021) includes all of the maintenance and permit forms for stormwater management and maintenance to control pollution entering the waterways through stormwater infrastructure.*

<b>Open Space Plan</b>	Yes	Open Space and Recreation Plan Update, 2011.	Local	Open Space Department
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Open Space Plan was last updated in 2011. This plan promotes the conservation of open space within the Borough and promotes protection of the environment, improves the communities quality of life, and preserves natural and cultural assets for the Borough.*

<b>Urban Water Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Habitat Conservation Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Economic Development Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Shoreline Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Community Wildfire Protection Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Community Forest Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Transportation Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Agriculture Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Climate Action/ Resilience/Sustainability Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Tourism Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Business/ Downtown Development Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b> How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Management Plan is the responsibility of the Boroughs Emergency Management Council. The Plan outlines the emergency management team along with the emergency management coordinator and establishes the resources and staff available for emergency response. The purpose of the plan is to provide a systematic way of responding to emergency situations within the Borough.</i>	Yes	Borough of Hopatcong Emergency Management Plan, June 2024	Local	Office of Emergency Management
<b>Continuity of Operations Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Substantial Damage Response Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Threat and Hazard Identification and Risk Assessment</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Post-Disaster Recovery Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 14.3.2 Development and Permitting Capability

Table 14-3 summarizes the capabilities of Hopatcong to oversee and track development.

Table 14-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	The Construction Department issues development permits.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	-
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	-
Describe the level of buildout in your jurisdiction.	N/A	There is area for development and build-out potential within the Borough.

### 14.3.3 Administrative and Technical Capability

Table 14-4 summarizes potential staff and personnel resources available to Hopatcong and their current responsibilities that contribute to hazard mitigation.

Table 14-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	<p>The Borough of Hopatcong's Land Use Administration falls under one newly created "Land Use Board".</p> <p>The Land Use Board reviews applications for the subdivision of land or for the development of land (Site Plan Review).</p> <p>The Land Use Board considers applications that require exceptions (variances) from the Borough Zoning Ordinance,</p>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		Chapter 242 of the Borough Codebook. The Board interprets the zoning map and hears appeals from decisions of the Zoning Officer.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	Yes	The Office of Emergency Management is located within the Department of Public Safety.
Environmental Board/Commission	Yes	<p>The Environmental Commission is a seven-member Commission with two alternates established in 1972 (until 1983 referred to as Conservation Commission) as provided in Article Two of Chapter 5 "Environmental Commission" of the Code of the Borough of Hopatcong in accordance with Chapter 245 of the Laws of New Jersey, 1968. The members and alternates are appointed by the Mayor with staggered terms of service. There is a Chairman and Vice-Chairman. The Borough provides a recording secretary. One member of the Commission is appointed by the Mayor to serve on the Land Use Board, as provided in the State Municipal Land Use Law. Some of the activities of the Environmental Commission include securing grants, promoting and conducting environmental and conservation programs, reviewing NJDEP and EPA activities, assisting with litter cleanup and beautification activities, water testing of the Musconetcong River, and, in general, involving the entire community in preserving and enhancing the environment.</p>
Open Space Board/Committee	Yes	<p>The Open Space / Recreation Committee was established in 2000 through Article Three of Chapter 5 "Open Space Committee" of the Code of the Borough of Hopatcong. In 1999 the voters of the Borough authorized a one cent per \$100 of assessed valuation of each annual tax levy commencing with the year 2000 to be placed in an "Open Space and Recreation Fund". The Committee is charged with the preparation of an Open Space and Recreation Plan and with recommending to the Mayor and Council the use of the "Open Space and Recreation Fund". The Plan has been completed and accepted. The Planning Board has also adopted it as an element of the Borough Master Plan. The Open Space/Recreation Committee consists of an eight-member committee, consisting of the Mayor and a resident-at-large appointed by the Mayor, and six members appointed by the Council consisting of a council member, a member of the Planning Board, a member of the Zoning Board, a member of the Environmental Commission, a member of the Recreation Commission and a resident-at-large. The Committee elects a chairperson, a vice-chairperson, and a secretary. The Borough provides a recording secretary. On the occasion of a tie vote, the chairperson is given an extra vote to break the tie.</p>
Economic Development Commission/Committee	No	-



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Public Works/Highway Department	Yes	The Department of Public Works is responsible for maintaining the Borough roads during all seasons, construction projects like additional parking in Maxim Glen or replacing a wall at the Civic Center, installing and maintaining stormwater catch basins and piping, maintaining and repairing some Borough vehicles, providing building maintenance, assisting the Water Department with main installation and repair, assisting with athletic field and park maintenance, leaf collection, demolition of buildings, and other activities.
Construction/Building/Code Enforcement Department	Yes	The Construction Department is responsible for enforcement of the NJ Uniform Construction Code, which includes building, plumbing, energy, electrical, elevator and mechanical codes. Building permits and certificates of occupancy are issued through this department.
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management is located within the Department of Public Safety.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	The Office of Emergency Management is located within the Department of Public Safety.
Mutual aid agreements	Yes	Fire Department/EMS/OEM
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	The Borough of Hopatcong's Land Use Administration falls under one newly created "Land Use Board".  The Land Use Board reviews applications for the subdivision of land or for the development of land (Site Plan Review).  Engineers
Engineers or professionals trained in building or infrastructure construction practices	Yes	Borough Engineer
Planners or engineers with an understanding of natural hazards	Yes	Borough Engineer
Staff with expertise or training in benefit/cost analysis	Yes	Administrator
Professionals trained in conducting damage assessments	Yes	Construction
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Borough Engineer
Emergency manager	Yes	The Office of Emergency Management is located within the Department of Public Safety.
Grant writers	Yes	Millennium
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 14.3.4 Fiscal Capability

Table 14-5 summarizes financial resources available to Hopatcong.

Table 14-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 14.3.5 Education and Outreach Capability

Table 14-6 summarizes the education and outreach resources available to Hopatcong.



Table 14-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Generally, information goes through the Police Department (Police Chief). If there is an emergency the Emergency Management Department has a trained PIO.
Personnel skilled or trained in website development	Yes	Administration Office is responsible for the Borough's website.
Hazard mitigation information available on your website	Yes	Some information is available through Emergency Management and the Fire Department.
Social media for hazard mitigation education and outreach	Yes	Facebook and Twitter
Citizen boards or commissions that address issues related to hazard mitigation	Yes	The Emergency Management Council consists of ten members appointed by the Mayor. Of the ten members one is appointed Coordinator and four others as Deputies. The membership cuts across Borough Departments, Hopatcong School District, churches, and local organizations.
Warning systems for hazard events	Yes	Nixle
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Health Clinic, Fire Prevention Bureau

### 14.3.6 Community Classifications

Table 14-7 summarizes classifications for community programs available to Hopatcong.

Table 14-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	6	2013
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	Bronze	December 16, 2020
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable





### 14.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 14-8 summarizes the adaptive capacity for each identified hazard of concern and the Borough’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 14-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Medium
Disease Outbreak	Medium
Drought	Medium
Earthquake	Medium
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Medium
Nor’easter	Medium
Severe Weather	Medium
Severe Winter Weather	Medium
Wildfire	Medium

## 14.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 14-1 is responsible for maintaining this information.

### 14.4.1 NFIP Statistics

Table 14-9 summarizes the NFIP policy and claim statistics for Hopatcong.

Table 14-9. Hopatcong NFIP Summary of Policy and Claim Statistics

# Policies	8
# Claims (Losses)	12
Total Loss Payments	\$54,192.61
# Repetitive Loss Properties (NFIP definition)	1



# Policies	8
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA 2024

## 14.4.2 Flood Vulnerability Summary

Table 14-10 provides a summary of the NFIP program in Hopatcong.

Table 14-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	There are no areas in the Borough which are prone to repeated flooding. There have been two flood event cases, but not since the last HMP.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown, at this time.
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	The Borough utilizes FEMA Substantial Damage formula.
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	There has been no recent flooding events resulting in Substantial Damages.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	No properties have been mitigated for flooding.
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes, the flood hazard maps for the Borough adequately address the flood risk.
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Construction Official or Designee



NFIP Topic	Comments
Are any certified floodplain managers on staff in your jurisdiction?	No, not at this time.
Do you have access to resources to determine possible future flooding conditions from climate change?	The Borough utilizes state floodplain drawings for dam failure, etc. and are not concerned with other flooding conditions.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would welcome any continuing education or certification trainings on floodplain management if offered in the County.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	None, at this time.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Land Use Board reviews then sends to Construction Department for permitting process.
What are the barriers to running an effective NFIP program in the community, if any?	The Borough does not implement NFIP program activities due to low flooding concerns.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	February 3, 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 124 - Floodplain Management
What is the date that your flood damage prevention ordinance was last amended?	July 6, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets the minimum requirements.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Land Use Board oversees and makes recommendations to support floodplain management within the Borough.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No, and the community hasn't considered joining.

## 14.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 14-11 through Table 14-13.

Table 14-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	6	0	0	6



	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	3	0	0	3
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	6	0	1	7
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	5	0	1	6
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	12	4	0	16
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 14-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None identified.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 14-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None anticipated.					

## 14.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Hopatcong's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 14.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Borough are shown in Figure 14-1 through Figure 14-3. These maps are based on the best available data at the time of the preparation



of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Hopatcong has significant exposure. The maps show the location of potential new development, where available.

Figure 14-1. Hopatcong Flood and Sinkhole Hazard Area Extent and Location

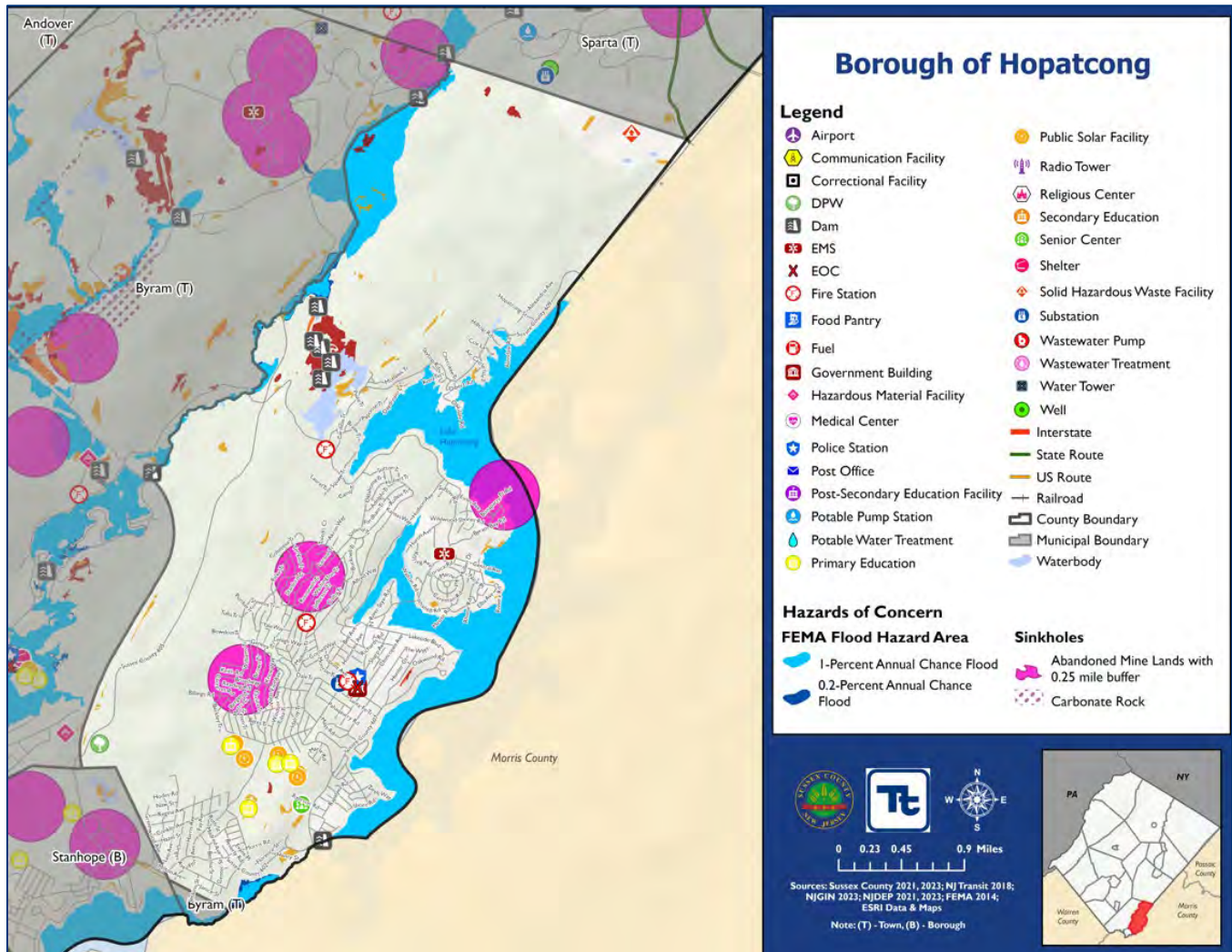






Figure 14-2. Hopatcong Hazardous Materials and Wildfire Hazard Area Extent and Location

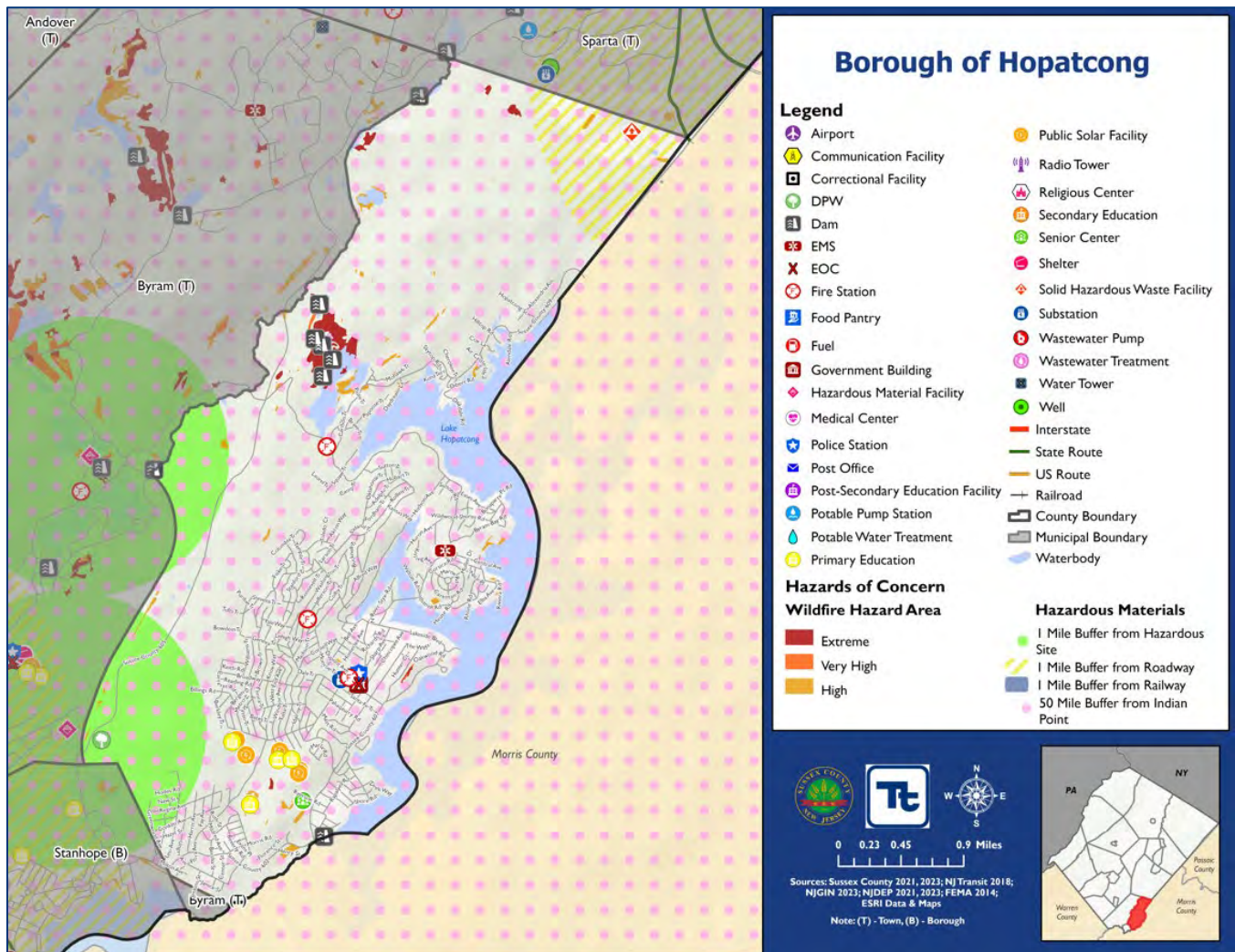
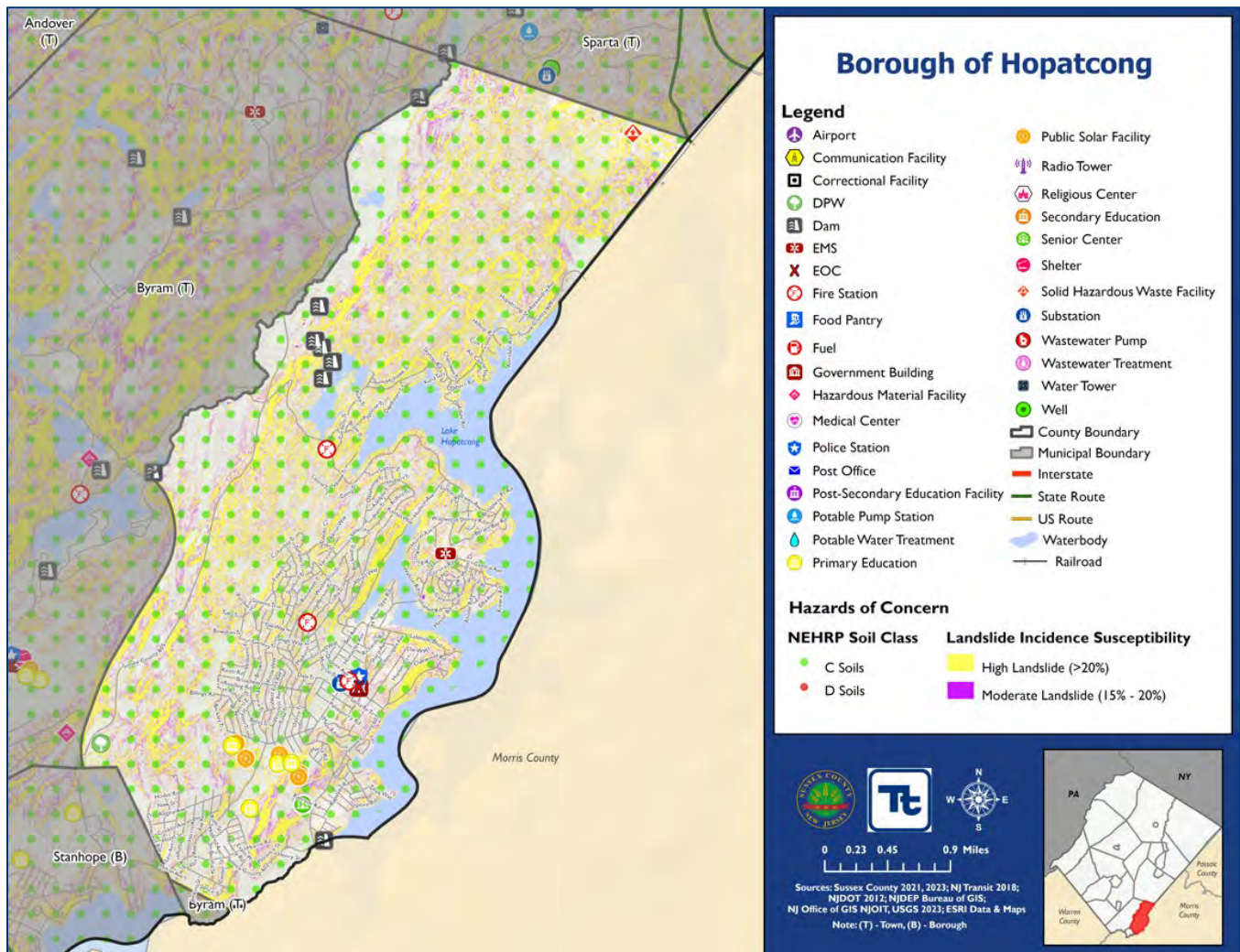


Figure 14-3. Hopatcong NEHRP and Landslide Hazard Area Extent and Location





## 14.6.2 Hazard Event History

The history of natural and non-natural hazard events in Hopatcong is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 14-14 provides details on loss and damage in Hopatcong during hazard events since the last hazard mitigation plan update.

Table 14-14. Hazard Event History in Hopatcong

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Hopatcong
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Borough maintained social distancing and upheld the mask policy during the pandemic. Training for firehouse was postponed preventing social gathering.
August 4, 2020	Tropical Storm Isaias	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	The Borough experienced damages due to the tropical storm, such as downed trees and power lines.
January 31- February 2, 2021	Severe Winter Storm and Snowstorm (FEMA-DR-4597)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	The Borough received around 20 inches of snowfall.
September 1-3, 2021	Remnants of Hurricane Ida (FEMA-DR-4614)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	The Borough experienced downed trees and power outages and road closures. No flash floods were recorded.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 14.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Hopatcong .





## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Hopatcong reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Borough indicated the following:

- Change Flood ranking from Medium to Low as there are limited areas in the Borough which flood.
- Change Infestation ranking from Low to Medium due the Spotted Lantern Fly infestation during June through August.
- The Borough agreed with the remainder of the calculated hazard rankings.

Table 14-15 shows Hopatcong's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 14-15. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Low
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Medium
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 14-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.



Table 14-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
There are no critical facilities located in the floodplain.					

Source: Sussex County 2021, 2023; NJGIN 2023

### 14.6.4 Identified Issues

After review of Hopatcong's hazard event history, hazard rankings, hazard location, and current capabilities, Hopatcong identified the following vulnerabilities within the community:

- Backup power sources are necessary to maintain critical services for critical facilities. The Borough has entered into a mutual aid agreement with the St. Jude Church Parish to be an emergency shelter. The Parish lacks a backup power source. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.
- The Borough has noticed that there are high levels of polyfluoroalkyl substances (PFAS) contaminating the water pump stations. PFAS are widely used, long lasting chemicals, components of which break down very slowly over time. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals.
- The Borough requires an upgraded radio system that can be used by all our emergency services to better coordinate emergency response in the Borough during storms and other emergencies. Radios are installed in all fire apparatus. Transitions are currently underway for incorporation into Police Dispatch.
- The Ambulance Squad building (516 River Styx Road) is over 40 years old and deteriorating. This critical facility provides life safety operations for the Borough, protecting and providing care to visitors and residents. Continued impacts from severe weather has caused the structure to become unstable.
- The Borough would like to enhance existing outreach and develop additional hazard outreach. The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- Dams in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:
  - Bear Pond Dam E (poor)
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. The Borough's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.



- The Borough lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Borough has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Borough and potentially reduce the number of emergency calls during hazardous events.
- The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The Borough does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has one repetitive loss property, but other properties may be impacted by flooding as well.
- The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Borough is currently not part of the Firewise program.

## 14.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 14.7.1 Past Mitigation Action Status

Table 14-17 indicates progress on the Borough's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 14.7.2 Additional Mitigation Efforts

Hopatcong did not identify any additional mitigation efforts completed since the last HMP. Since the adoption of the County's first HMP, Hopatcong has made significant mitigation progress in the following areas:

- Public Outreach and Committees
- Emergency Response Coordination





- Critical Facility upgrades
- Funding Opportunities and Mutual Aid Agreements



Table 14-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Hopatcong-001	St. Jude Parrish Center Backup Power	Hurricane, Nor'easter, Severe Winter Weather, Severe Weather	Administration, Engineer, St Jude Parish	<p><b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. The Borough has entered into a mutual aid agreement with the St. Jude Church Parish to be an emergency shelter. The Parish lacks a backup power source.</p> <p><b>Solution:</b> The Engineer will research what size generator is needed to power the Parish. The Borough will then assist with the purchase and installation of the selected generator and necessary electrical components to supply backup power to the shelter.</p>	<p>1. In Progress 2. The Borough is working on alternate funding for this project. Mutual Aid agreement and resolution for Parish.</p>	<p>1. Include in update 2. Not applicable 3. Not applicable</p>
2021-Hopatcong-002	Woodchipper	Hurricane, Nor'easter, Severe Winter Weather, Severe Weather	Public Works	<p><b>Problem:</b> A new chipper is needed to help with storm clean up as most storms cause tree and utilities damage in the Borough. The</p> <p><b>Solution:</b> Borough will purchase a new woodchipper and train staff in its use.</p>	<p>1. Completed 2. Purchased 2 years ago</p>	<p>1. Discontinue 2. N Not applicable 3. Completed</p>
2021-Hopatcong-003	Filters for Lakeside Storm Drains	Severe Weather, Infestation, Invasive Species	Public Works	<p><b>Problem:</b> Nutrients entering the lake through stormwater contribute to harmful algal blooms.</p> <p><b>Solution:</b> The Borough will purchase and install filters on storm drains. Public Works will be in charge of the installation and maintenance of these filters.</p>	<p>1. No Progress 2. Efforts have been made in putting filters onto water pump stations (PFAS)</p>	<p>1. Discontinue 2. Not applicable 3. The Borough is directing their efforts into installing filters on the water pump stations for PFAS.</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Hopatcong-004	Harmful Algal Bloom Control	Infestation, Invasive Species	Administration	<b>Problem:</b> Harmful algal blooms present a health concern and are damaging to the environment  <b>Solution:</b> The Administration will work with the NJDEP to gain approval to introduce albino carp into the lake to eat plant life that contributes to harmful algae blooms.	1. Discontinue 2. NJDEP will not allow the Carp (not native).	1. Discontinue 2. Not applicable 3. NJDEP will not allow the Albino Carp because it is not a native species.
2021-Hopatcong-005	Radio System	All Hazards	Emergency Management	<b>Problem:</b> The Borough requires an upgraded radio system that can be used by all our emergency services to better coordinate emergency response in the town during storms and other emergencies.  <b>Solution:</b> The Borough will purchase an upgraded radio system that will be able to be used into the future.	1. In Progress. 2. Radios are installed in all fire apparatus. Transitions are currently underway for incorporation into Police Dispatch. Another year/year half before completion.	1. Include in update 2. The Borough will continue to transition emergency radio systems into Police Dispatch services. 3. Not applicable
2021-Hopatcong-006	Ambulance Squad Building	All Hazards	Administration, Engineer, Ambulance Squad	<b>Problem:</b> The Ambulance Squad building is over 40 years old and deteriorating.  <b>Solution:</b> The Borough will construct a new building for the Ambulance Squad with modern standards for construction of critical facilities.	1. In Progress 2. Looking at options, depending on surveys on emergency services.	1. Include in update 2. Not applicable 3. Not applicable
2021-Hopatcong-007	Repetitive Loss Mitigation	Flood, Severe Weather	NFIP Floodplain Administrator, supported by homeowners	<b>Problem:</b> Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has one repetitive loss property, but other	1. No Progress 2. Due to other prioritized projects, there was no progress made on this action.	1. Include in update 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				properties may be impacted by flooding as well.  <b>Solution:</b> Conduct outreach to 5 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).		
2021-Hopatcong-008	Hazard Outreach Enhancement	All Hazards	Administration	<b>Problem:</b> The Borough would like to enhance existing outreach and develop additional hazard outreach.  <b>Solution:</b> The Borough will enhance the current all-hazards public education and outreach program by developing, implementing and facilitating a multi-hazard public awareness program. Provide information on all types of hazards, preparedness and mitigation measures via the Borough website and social media.	1. In Progress 2. Borough has a FireWise committee in progress who will send out educational outreach to the public.	1. Include in update 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Hopatcong-009	Flood Damage Prevention Ordinance Update	Flood	FPA, Administration	<b>Problem:</b> The Borough's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.  <b>Solution:</b> The Borough will update the Flood Damage Prevention Ordinance to include the freeboard requirement.	1. No Progress 2. Due to other prioritized projects, there was no progress made on this action.	1. Include in update 2. Not applicable 3. Not applicable
2021-Hopatcong-010	Disaster Debris Management Plan	All Hazards	Public Works, Emergency Management	<b>Problem:</b> The Borough lacks a Disaster Debris Management Plan.  <b>Solution:</b> The Borough will develop and adopt a Disaster Debris Management Plan.	1. No Progress 2. Due to other prioritized projects, there was no progress made on this action.	1. Include in update 2. Not applicable 3. Not applicable



### 14.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Hopatcong participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Hopatcong would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Borough priorities.

Table 14-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 14-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.





Table 14-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X			X		X	X
Disease Outbreak	X	X		X	X		X			X
Drought	X	X		X			X			X
Earthquake	X	X		X			X			X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X	X		X			X			X
Hazardous Materials	X	X		X			X			X
Hurricane	X	X		X	X		X			X
Infestation	X			X			X			X
Nor'easter	X	X		X	X		X			X
Severe Weather	X	X		X	X		X			X
Severe Winter Weather	X	X		X			X			X
Wildfire	X	X		X			X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 14-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-HopatcongB-01	Back-up Generator for Emergency Shelter	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-HopatcongB-02	Water Pump Filters for PFAS	1	0	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2025-HopatcongB-03	Emergency Radio System	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-HopatcongB-04	Upgrades to Ambulance Squad Building	1	0	1	1	1	0	0	1	1	1	1	1	1	1	11	High
2025-HopatcongB-05	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-HopatcongB-06	Dam Repair	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-HopatcongB-07	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-HopatcongB-08	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-HopatcongB-09	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-HopatcongB-10	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-HopatcongB-11	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-HopatcongB-12	Certified Floodplain Manager Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-HopatcongB-13	Firewise Program Participation	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



## Action 2025-HopatcongB-01. Back-up Generator for Emergency Shelter

<b>Lead Agency:</b>	Engineer		
<b>Supporting Agencies:</b>	St Jude Parish, Borough Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Backup power sources are necessary to maintain critical services for critical facilities. The Borough has entered into a mutual aid agreement with the St. Jude Church Parish to be an emergency shelter. The Parish lacks a backup power source. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.		
<b>Description of the Solution:</b>	The Engineer will research what size generator is needed to power the Parish. The Borough will then explore alternate funding sources to assist with the purchase and installation of the selected generator and necessary electrical components to supply backup power to the shelter.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget, Parish Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5, 6, 7		
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will protect socially vulnerable populations who seek shelter during hazard events by ensuring the emergency shelter has adequate power supply.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support populations in future residential development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action ensures the continuity of operation for a critical facility (emergency shelter) are maintained during a hazard event.		
<b>Impact on Capabilities:</b>	This action enhances emergency response by maintaining safe operations for an emergency shelter.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action.	Problem persists.	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	



## Action 2025-HopatcongB-02. Water Pump Filters for PFAS

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Borough has noticed that there are high levels of polyfluoroalkyl substances (PFAS) contaminating the water pump stations. PFAS are widely used, long lasting chemicals, components of which break down very slowly over time. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals.		
<b>Description of the Solution:</b>	The Borough Engineer will confirm installation of water filters at the water pump stations will remove contaminants from potable water. Following confirmation, Public Works will install the necessary water filters.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	User Fees, Borough Budget		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2		
<b>Benefits:</b>	Because of their widespread use and their persistence in the environment, many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment. This action will assist in the reduction of PFAS in the Borough's water system.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will protect socially vulnerable populations from increased exposure to PFAS which can cause cancers and other adverse health impacts.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will upgrade the water pump stations which are a critical lifeline for the community's water system by filtering out contaminants.		
<b>Impact on Capabilities:</b>	This action will enhance the Borough's capabilities to provide clean water by installing water filters to take out PFAS and other contaminants.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rains and flooding conditions can result in the movement of PFAS through the water cycle, pushing the chemical deeper into the environment.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action.	Problem persists.	
	Remove water pump stations	Costly, not an option, lack of services.	
	Relocate water pump stations	Costly, not an option, problem persists.	



## Action 2025-HopatcongB-03. Emergency Radio System

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Police Department, Borough Administration		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Borough requires an upgraded radio system that can be used by all our emergency services to better coordinate emergency response in the Borough during storms and other emergencies. Radios are installed in all fire apparatus. Transitions are currently underway for incorporation into Police Dispatch.		
<b>Description of the Solution:</b>	The Borough will continue to transition emergency radio systems into Police Dispatch services.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	Emergency Management Performance Grants (EMPG) Program, Borough Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 6		
<b>Benefits:</b>	This action will ensure emergency personnel are able to effectively communicate with one another before, during, and after an emergency event.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will protect socially vulnerable populations by ensuring calls for assistance are able to be connected and relayed to the appropriate emergency response personnel.		
<b>Impact on Future Development:</b>	This action results in strengthening of emergency operations through bolstering the safety and security and communications lifelines which could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action results in strengthening of emergency operations through bolstering the safety and security and communications lifelines.		
<b>Impact on Capabilities:</b>	This action will enhance the emergency radio system for the Borough which is an integral portion of the communications lifeline for emergency response and preparation.		
<b>Climate Change Considerations:</b>	This action will take into consideration climate change impacts to the severity and frequency of hazard events. Anticipated future conditions can result in an influx of emergency calls in the Borough.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action.	Problem persists.	
	Implement new radio systems for each emergency response department.	Lack of coordination between departments, costly.	
	Utilize call services to coordinate emergency response.	Not reliable, slower process.	



## Action 2025-HopatcongB-04. Upgrades to Ambulance Squad Building

<b>Lead Agency:</b>	Ambulance Squad		
<b>Supporting Agencies:</b>	Engineering, Borough Administration		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	The Ambulance Squad building (516 River Styx Road) is over 40 years old and deteriorating. This critical facility provides life safety operations for the Borough, protecting and providing care to visitors and residents. Continued impacts from severe weather has caused the structure to become unstable.		
<b>Description of the Solution:</b>	The Borough will continue to explore funding availability and options based on public survey responses to complete the reconstruction of the Ambulance Squad building. Engineering will ensure proposed plans for the Ambulance Squad building are sufficient.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Borough Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 6		
<b>Benefits:</b>	Strengthening the Ambulance Squad facility will benefit the whole community, as emergency responses occur before, during, and after an hazardous event.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will ensure socially vulnerable populations are able to receive adequate emergency care, when needed, by the Ambulance Squad.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will ensure the operations of the Ambulance Squad are able to continue as anticipated.		
<b>Impact on Capabilities:</b>	This action will maintain the emergency response operations for the Borough by updating and restoring the Ambulance Squad building.		
<b>Climate Change Considerations:</b>	This action takes into consideration climate change impacts to the frequency and severity of hazard events which can have adverse impacts on the deteriorating building.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action.	Problem persists.	
	Elevate existing building.	Problem persists for damages from other hazards besides flood.	
	Remove building.	Not an option, lack of facility operations.	





## Action 2025-HopatcongB-05. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input checked="" type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	The Borough would like to enhance existing outreach and develop additional hazard outreach. The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Borough by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Borough.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Borough.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-HopatcongB-06. Dam Repair

<b>Lead Agency:</b>	Engineer						
<b>Supporting Agencies:</b>	Dam Manager, NJDEP Bureau of Dam Safety, County Engineer						
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div style="width: 35%;"> <input type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input type="checkbox"/> Nor'easter  <input type="checkbox"/> Severe Weather  <input type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>						
<b>Description of the Problem:</b>	<p>Dams in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant. The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:</p> <ul style="list-style-type: none"> <li>Bear Pond Dam E (poor)</li> </ul>						
<b>Description of the Solution:</b>	<p>The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.</p>						
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected						
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget						
<b>Implementation Timeline:</b>	Within 5 years						
<b>Goals Met:</b>	1, 2, 3						
<b>Benefits:</b>	Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.						
<b>Impact on Socially Vulnerable Populations:</b>	The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.						
<b>Impact on Future Development:</b>	Future development downstream of dams will also be protected from dam failure.						
<b>Impact on Critical Facilities/Lifelines:</b>	Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.						
<b>Impact on Capabilities:</b>	Not applicable						
<b>Climate Change Considerations:</b>	Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.						
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <input type="checkbox"/> Local Plans and Regulations (LPR)  <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) </div> <div style="width: 35%;"> <input type="checkbox"/> Natural Systems Protection (NSP)  <input checked="" type="checkbox"/> Education and Awareness Programs (EAP) </div> </div>						
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <input type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input checked="" type="checkbox"/> Public Information (PI) </div> <div style="width: 35%;"> <input type="checkbox"/> Natural Resource Protection (NR)  <input checked="" type="checkbox"/> Structural Flood Control Projects (SP)  <input type="checkbox"/> Emergency Services (ES) </div> </div>						
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low						
<b>Alternatives:</b>	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">Action</th> <th style="width: 50%;">Evaluation</th> </tr> </thead> <tbody> <tr> <td>No action</td> <td>Problem persists</td> </tr> </tbody> </table>			Action	Evaluation	No action	Problem persists
Action	Evaluation						
No action	Problem persists						



	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access
	Remove all dams	Without proper analysis, dam removal may increase flooding risk



## Action 2025-HopatcongB-07. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Construction Official, Construction Department, Borough Administration, NFIP State Coordinator, FEMA Regional Office																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	<p>A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Borough's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.</p>																
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.</p>																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5,7																
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>																
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>																
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>																
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>																
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>																
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem exists</td></tr></table>	Action	Evaluation	No Action	Current problem exists												
Action	Evaluation																
No Action	Current problem exists																



	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage



## Action 2025-HopatcongB-08. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management										
<b>Supporting Agencies:</b>	Public Works, Borough Administration										
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire									
<b>Description of the Problem:</b>	The Borough currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.										
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.										
<b>Estimated Cost:</b>	Staff time										
<b>Potential Funding Sources:</b>	Municipal budget										
<b>Implementation Timeline:</b>	Within 5 years										
<b>Goals Met:</b>	5										
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.										
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable										
<b>Impact on Future Development:</b>	Not Applicable										
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable										
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.										
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.										
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)									
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)									
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th> <th>Evaluation</th> </tr> </thead> <tbody> <tr> <td>No Action</td> <td>Current problem remains</td> </tr> <tr> <td>Rely on federal cleanup</td> <td>These services may or may not be available</td> </tr> <tr> <td>Rely on state cleanup</td> <td>These services may or may not be available</td> </tr> </tbody> </table>	Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available		
Action	Evaluation										
No Action	Current problem remains										
Rely on federal cleanup	These services may or may not be available										
Rely on state cleanup	These services may or may not be available										





## Action 2025-HopatcongB-09. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Borough has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Borough and potentially reduce the number of emergency calls during hazardous events.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Borough events, the Borough newsletters, social media, the Borough website, and having the materials on display for the public at Borough libraries and offices. Consider hiring staff to work directly with socially vulnerable populations. Work with Sussex County to identify and create a list of socially vulnerable populations utilizing Register Ready.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Borough. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Borough will become educated on hazards risks. The Borough will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program. It would also assist the Borough in identifying where socially vulnerable populations are located in the jurisdiction.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	



	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
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## Action 2025-HopatcongB-10. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Planning Board, Borough Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.		
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Borough Budget		
<b>Implementation Timeline:</b>	Within 2 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.		
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will create a new Borough capability, while enhancing its current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		Current problem remains
	Only share opportunities when notified of grant funding		May not be enough time to garner interest or write application
	Wait for information from the State on flood-damaged properties		May be a delay in notice



## Action 2025-HopatcongB-11. Certified Floodplain Manager Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Construction Official, Construction Department, Borough Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Borough does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Borough staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Borough and assure the Borough's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Borough's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-HopatcongB-12. Repetitive Loss Properties

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Sussex County, Property Owners		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has one repetitive loss property, but other properties may be impacted by flooding as well.		
<b>Description of the Solution:</b>	The Borough will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA FMA, FMA SWIFT, Municipal Budget, County Budget, Property Owners		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	2, 3		
<b>Benefits:</b>	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will enhance the Borough's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem continues	
	Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas	
	Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event	



## Action 2025-HopatcongB-13. Firewise Program Participation

<b>Lead Agency:</b>	Fire Department								
<b>Supporting Agencies:</b>	Borough Administration								
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire								
<b>Description of the Problem:</b>	The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Borough is currently not part of the Firewise program.								
<b>Description of the Solution:</b>	The Borough will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Borough will also create an education program and set up town hall meetings.								
<b>Estimated Cost:</b>	Low								
<b>Potential Funding Sources:</b>	Municipal Budget								
<b>Implementation Timeline:</b>	3 years								
<b>Goals Met:</b>	1, 2, 3, 4, 5								
<b>Benefits:</b>	The national Firewise USA recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level.								
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Borough may be located within very high and high fuel risk areas for wildfires. Participation in the Firewise Program will assist in the Borough's efforts to educate populations on how to increase the ignition resistance of their home and property.								
<b>Impact on Future Development:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made. This assessment may identify areas which the Borough would like to restrict future development.								
<b>Impact on Critical Facilities/Lifelines:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made, which could include relocating various critical facilities or lifelines.								
<b>Impact on Capabilities:</b>	This action will increase wildfire risk reduction and response capabilities for the Borough.								
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.								
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)								
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)								
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low						
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th><th>Evaluation</th></tr> </thead> <tbody> <tr> <td>No Action</td><td>The Borough does not participate in the Firewise Program</td></tr> <tr> <td>Complete half of the program requirements</td><td>The Borough would not be eligible to participate in the Firewise Program</td></tr> </tbody> </table>			Action	Evaluation	No Action	The Borough does not participate in the Firewise Program	Complete half of the program requirements	The Borough would not be eligible to participate in the Firewise Program
Action	Evaluation								
No Action	The Borough does not participate in the Firewise Program								
Complete half of the program requirements	The Borough would not be eligible to participate in the Firewise Program								





	Participate in the program, but do not utilize resources	The Borough would miss opportunities to strengthen communication and safety skills
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## 15. TOWNSHIP OF LAFAYETTE

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Lafayette with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Lafayette, describes who participated in the planning process, assesses Lafayette's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 15.1 HAZARD MITIGATION PLANNING TEAM

The Township of Lafayette identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 15-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 15-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Rick Hughes, EMC Address: 33 Morris Farm Road, Lafayette Township, NJ 07848 Phone Number: (973) 985-5971 Email: Hughesr22@gmail.com	Name/Title: Jim Ando, DPW Foreman Address: 33 Morris Farm Road, Lafayette Township, NJ 07848 Phone Number: (973) 841-0412 Email: ltrd@ptd.net
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: George Hutnick, Zoning Officer Address: 33 Morris Farm Road, Lafayette Township, NJ 07848 Phone Number: (973) 383-1817 ext.12 Email: zoning@lafayettetwp.org	
<b>Additional Contributors</b>	
Name/Title: Mike Vreeland, Municipal Engineer Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved draft annex.	
Name/Title: Stephanie Pizzulo, Building/Planning Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: George Hutnick, Zoning Officer Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved draft annex.	
Name/Title: AnnaRose Fedish, Municipal Clerk Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved draft annex.	
Name/Title: Rick Hughes, EMC Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved draft annex.	
Name/Title: Leigh Witty, Construction Official Method of Participation: Reviewed and approved draft annex.	



Primary Point of Contact	Alternate Point of Contact
Name/Title: Allen Henderson, Mayor Method of Participation: Reviewed and approved draft annex.	
Name/Title: David Banish, Planner Method of Participation: Reviewed and approved draft annex.	
Name/Title: Jim Ando, DPW Foreman Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved draft annex.	

## 15.2 COMMUNITY PROFILE

Lafayette Township is centrally located in Sussex County. It is bordered to the north by Wantage Township, to the east by Hardyston Township, to the south by Sparta and Andover Townships, and to the west by Frankford and Hampton Townships. The Township covers a total area of approximately 18.0 square miles. The following unincorporated communities are located within the Township: Harmonyville, Hopkins Corner, Warbasse, and Branchville Junction. There are many small ponds located throughout the Township and the Paulins Kill flows through the southwestern corner of the Township. According to the U.S. Census, the 2020 population for Lafayette was 2,358, a 6.9-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 2.6-percent of the population is 5 years of age or younger, 2-percent is 65 years of age or older, 1.7-percent is non-English speaking, 2.7-percent is below the poverty threshold, and 1.6-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Township of Lafayette, 23-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 15.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Lafayette performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs



- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Lafayette to identify opportunities for integrating mitigation concepts into ongoing Township procedures.

### 15.3.1 Planning and Regulatory Capability and Integration

Table 15-2 summarizes the planning and regulatory tools that are available to Lafayette.

Table 15-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	Chapter 8 – Building and Housing	State and Local	Department of Community Affairs
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The Township of Lafayette relinquished its jurisdiction of the administration and enforcement of the Uniform Construction Code and transferred jurisdiction for the administration and enforcement of the Uniform Construction Code to the Department of Community Affairs of the State of New Jersey. Developments are reviewed and approved through municipal Land Use Board. Zoning permits are issued through the municipal Zoning Officer.</i></p>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 13- Zoning	Local	Zoning Officer
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.</i></p>				
<b>Subdivision Code</b>	Yes	Chapter 12 – Land Use; Chapter 14 – Land Use Procedures	Local	Land Use Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.</i></p>				
<b>Site Plan Code</b>	Yes	Chapter 12- Land Use	Local	Site Plan Committee
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Approval of a site plan is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.</i></p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Stormwater Management Code</b>	Yes	Chapter 21- Stormwater Control	Local	Public Works

How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.*

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<ul style="list-style-type: none"> <li>Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.</li> <li>Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.</li> <li>Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?</li> <li>Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?</li> </ul> <p>Not all provisions of this law have become effective at the time of the writing of this plan.</p>				
<b>Growth Management</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 10, Soil and Soil Removal	Local	Zoning Officer
How has or will this be integrated with the HMP and how does this reduce risk? <i>Requires permitting for the removal or spreading of soil and defines responsibilities for the care of the land, including the mitigation of potential runoff.</i>				
<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 17- Flood Damage Prevention	Local	Zoning Officer
How has or will this be integrated with the HMP and how does this reduce risk? <i>It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:</i>				
<i>A. Protect human life and health;</i> <i>B. Minimize expenditure of public money for costly flood control projects;</i> <i>C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;</i> <i>D. Minimize prolonged business interruptions;</i> <i>E. Minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;</i> <i>F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;</i> <i>G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and</i> <i>H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</i>				
<b>Wellhead Protection</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Emergency Management Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Change Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	Lafayette Township Master Plan, 1977	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The master plan is a presentation of a land use element and a circulation plan and drainage facilities element of a master plan. The report includes discussions and proposals regarding the region, existing land use, natural features, population, future land use, goals and objectives and township roads and drainage facilities. Lafayette completed the Reexamination Report of its Master Plan in October 2024, and the review by Planner, Engineer, Land Use Board and municipal officials reflects current planning strategies for the municipality.</i>				
<b>Capital Improvement Plan</b>	Yes	Municipal Budget	Local	Township Committee
How has or will this be integrated with the HMP and how does this reduce risk? <i>The municipal budget, which acts as the Township's Capital Improvement Plan, includes various potential projects which may assist in hazard mitigation efforts. Since 2004, the municipality proactively budgets for capital equipment and projects through a Life Cycle Replacement strategy that accrues funds for replacement of critical equipment prior to unreliable performance. This proactive capital budgeting assist the municipality in maintaining reliable operation and current technology of its emergency services and public works essential equipment.</i>				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	Yes	Chapter 11-Flood Plain Management Regulations	Local	Flood Plain Administrator
How has or will this be integrated with the HMP and how does this reduce risk?  The ordinance identifies the position and assigns responsibility to the Flood Plain Administrator within the municipality. Additionally, outlines the process for construction permit and zoning reviews prior to approval for areas identified within the flood plain and potential impacts. This ordinance identifies specific flood hazard areas within the municipality. This ordinance in combination with the flood provisions of the Uniform Construction Code (UCC) applies to all proposed developments in flood hazard areas to minimize public and private losses due to flood conditions in designated flood hazard areas.				
<b>Stormwater Management Plan</b>	Yes	Lafayette Township Stormwater Management Plan, June 2005	Local	Engineering, Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. The plan also addresses the review and update of existing ordinances and other planning documents to allow for project designs that include low impact development techniques. The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought.</i>				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	Yes	Open Space and Recreation Plan, July 2020	Local	Open Space and Township Committees
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*The goals of the Plan Update act as guides for the Township to protect and manage its public open space lands for natural resource protection and retention of agricultural lands. Preservation of open space must be planned, just as any municipal infrastructure. A proactive approach to preservation and land stewardship complements other traditional municipal initiatives. This update to the 2005 Open Space and Recreation Plan reflects the Township's commitment to preserving, protecting, and maintaining the community's agricultural vistas and natural areas. The Township's Open Space Committee reaffirmed these goals and updated them as follows:*

- *Retain Lafayette Township's rural character and heritage by protecting natural places, including forests, steep slopes, ridgelines, and wetlands.*
- *Support the farming industry of the Township by promoting farmland preservation, and by maintaining viable, sustainable working farms.*
- *Preserve the historic character of the community, including the Lafayette Village Historic District.*
- *Ensure the diversity of flora and fauna by protecting their natural habitats through preservation and stewardship.*
- *Promote the stewardship of natural lands in Lafayette Township by guiding the use and management of natural areas and public lands.*
- *Create greenways and/or local trail systems to link neighborhoods to schools, recreational areas and parks, preserved natural areas, historic and cultural sites, and regional trail systems, all of which promote community connectivity.*
- *Protect drinking water quality and quantity through the preservation of surface water and groundwater recharge areas.*
- *Expand existing recreational facilities, as needed*

<b>Urban Water Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Habitat Conservation Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Economic Development Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Shoreline Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Community Wildfire Protection Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Community Forest Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Transportation Plan</b>	Yes	Lafayette Township Master Plan, 1977	Local	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*This element is a study of the Township roads and drainage facilities and is intended to set forth recommendations for community development specifically with respect to subdivisions and site plans.*

<b>Agriculture Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Lafayette Township Emergency Operations Plan, April 2023	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Operations Plan aims to assess the Township's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



### 15.3.2 Development and Permitting Capability

Table 15-3 summarizes the capabilities of Lafayette to oversee and track development.

Table 15-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	Developments are reviewed and approved through municipal Land Use Board. Zoning permits are issued through the municipal Zoning Officer.
<ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>		
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Permits are tracked by address and Lot/Block which are categorized in zones and hazard areas.
Do you have a buildable land inventory?	Yes	The inventory was prepared in support of the Fair Share Housing Plan prepared for the NJ Affordable Housing / Council on Affordable Housing. The Fair Share Housing Plan identifies the vacant land and buildability or constraints of the available land.
<ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>		
Describe the level of buildout in your jurisdiction.	N/A	The Township of Lafayette has limited developable lands due to land preservation and current build-out. The areas which have the potential for development are primarily located in residentially zoned and light industrial zoned locations.

### 15.3.3 Administrative and Technical Capability

Table 15-4 summarizes potential staff and personnel resources available to Lafayette and their current responsibilities that contribute to hazard mitigation.

Table 15-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Land Use Board has the responsibility to guide development in the Township in accordance with the NJ Municipal Land Use Law and other State and local regulations. The Board reviews and grants approvals of applications for subdivisions and site plans and hears appeals and grants variances from a strict application of the Township Zoning Ordinance in particular cases. The Board is responsible for development of the Township Master Plan and for making recommendations to the Township Committee for new ordinances or revisions of existing ordinances.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Open Space Board/Committee	Yes	<p>The Lafayette Township Open Space Advisory Committee is responsible for preserving, protecting, and enhancing open space in the Township and its historic, scenic, agricultural, and recreational resources for the use, benefit, and enjoyment of township residents and the public.</p> <p>The Lafayette Township Recreation Commission assumes a role in developing a sense of community and enhancing the quality of life by providing recreational and social programs for the residents and visitors by organizing and hosting special events.</p>
Economic Development Commission/Committee	Yes	The Economic Development Advisory Committee is committed to driving economic growth in Lafayette Township by creating opportunities for the retention and expansion of our existing businesses while attracting new and diverse business development prospects.
Public Works/Highway Department	Yes	The Lafayette Department of Public Works is comprised of employees who are dedicated to serving the community. They are responsible for the maintaining of the Township roads, municipal parking lots and parks. Other duties also include snow removal, trash pick-up and recycling pick up.
Construction/Building/Code Enforcement Department	Yes	<p>The Construction Office is responsible for enforcing the Uniform Construction Code.</p> <p>The Zoning department is responsible for enforcing the Zoning Ordinances adopted by the Township.</p>
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management plans for and responds to any emergency within the Township. It is responsible for coordinating the response of local, County, and State offices during an emergency.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	DPW maintains tree trimming, culvert cleaning/repairs
Mutual aid agreements	Yes	Surrounding communities
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	No job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk.
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Municipal Engineer and Planner – contracted and appointed each year
Engineers or professionals trained in building or infrastructure construction practices	Yes	Municipal Engineer and Planner – contracted and appointed each year
Planners or engineers with an understanding of natural hazards	Yes	Municipal Engineer and Planner – contracted and appointed each year



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Staff with expertise or training in benefit/cost analysis	Yes	Contracted
Professionals trained in conducting damage assessments	Yes	Emergency Management
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Contracted through Engineering firm responsible for maintaining Tax and Zoning Maps- annual updates-
Staff that work with socially vulnerable populations or underserved communities	Yes	Various Boards and Committees in the Township will conduct outreach with socially vulnerable populations and/or underserved communities.
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Contracted when needed
Emergency manager	Yes	Emergency Management Coordinator
Grant writers	Yes	Contracted
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	NFIP Floodplain Administrator is the Construction Official

### 15.3.4 Fiscal Capability

Table 15-5 summarizes financial resources available to Lafayette.

Table 15-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	Yes
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 15.3.5 Education and Outreach Capability

Table 15-6 summarizes the education and outreach resources available to Lafayette.





Table 15-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	No	-
Personnel skilled or trained in website development	Yes	
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	Yes	Link to Sussex County's Emergency Management page
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Available through PSAP, SC Sheriff Communications Center
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Various Boards and Committees in the Township will conduct outreach with socially vulnerable populations and/or underserved communities.
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

### 15.3.6 Community Classifications

Table 15-7 summarizes classifications for community programs available to Lafayette.

Table 15-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 15.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 15-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:



- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 15-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor'easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

## 15.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 15-1 is responsible for maintaining this information.

### 15.4.1 NFIP Statistics

Table 15-9 summarizes the NFIP policy and claim statistics for Lafayette.

Table 15-9. Lafayette NFIP Summary of Policy and Claim Statistics

# Policies	2
# Claims (Losses)	7
Total Loss Payments	\$24,565.66
# Repetitive Loss Properties (NFIP definition)	1
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*



*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

*Source: FEMA Region II 2024*

## 15.4.2 Flood Vulnerability Summary

Table 15-10 provides a summary of the NFIP program in Lafayette.

Table 15-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Township occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Engineering
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, online FEMA, State, and regional resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would consider attending continuing education and/or certification training on floodplain management if it were offered in the County.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review, engineering capability



NFIP Topic	Comments
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Staff and funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	January 27, 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 17- Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	August 2020
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Land Use Board considers efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has subdivision and site plan ordinances.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 15.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 15-11 through Table 15-13.

Table 15-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	1	0	0	1
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	1	0	0	1
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	4	0	0	4



	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Permits within SFHA	1	0	0	1
<b>2023</b>				
Total Permits	0	0	1	1
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 15-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Elizabethtown Gas-Construction Regional Office	Industrial Building	1	195 State Rt 94, Block 4, Lot 2.07	-	Completed

\* Only location-specific hazard zones or vulnerabilities identified.

Table 15-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
Reed Lane	Warehouse	1	299 Warbasse Junction, Block 4, Lot 4.04	-	Approved , Not constructed
Carlwood Land Development	Warehouse	1	300 Warbasse Junction, Block 9, Lot 1.01	-	Approved , Not Constructed
Lafayette Village Associates	Four (4) Apartment Buildings	4	75 State Rt 15, Block 8, Lots 17.01, 17.02, 18, 26.01 through 26.04	-	Approved, Not Constructed
Illicit Gardens	Cannabis Warehouse	1	144 State Rt 94, Block 7, Lot 25	-	Pending Planning Board Approval
Hamm's Landfill Solar Farm	Ground Mounted Solar	12.132 Acres of solar panels	230 Old Beaver Run Road, Block 14, Lot 33.01	-	Approved, Constructed scheduled to start 2Q2025

## 15.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Lafayette's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.



## 15.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 15-1 through Figure 15-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Lafayette has significant exposure. The maps show the location of potential new development, where available.

Figure 15-1. Lafayette Flood and Sinkhole Hazard Area Extent and Location Map

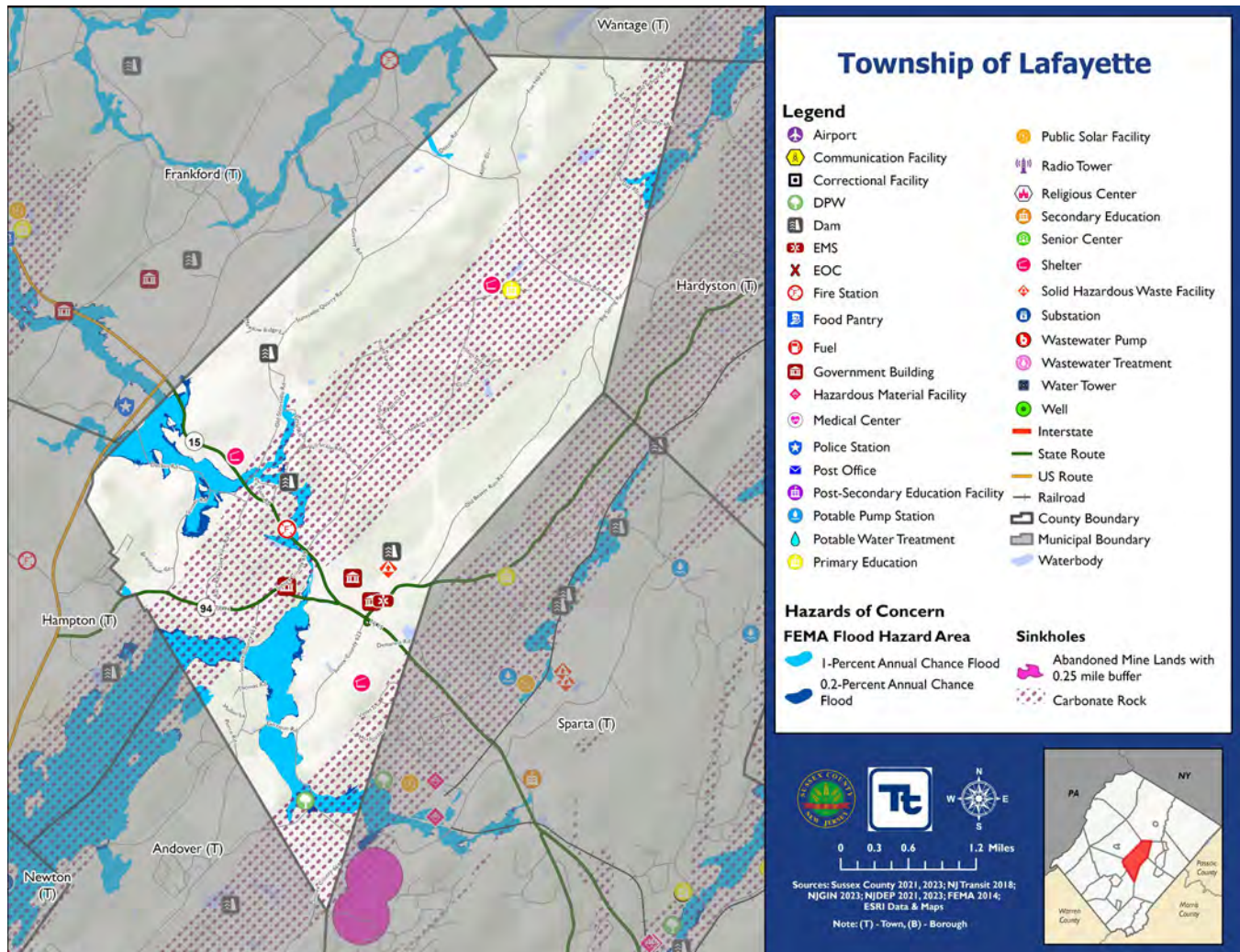




Figure 15-2. Lafayette Hazardous Materials and Wildfire Hazard Area Extent and Location Map

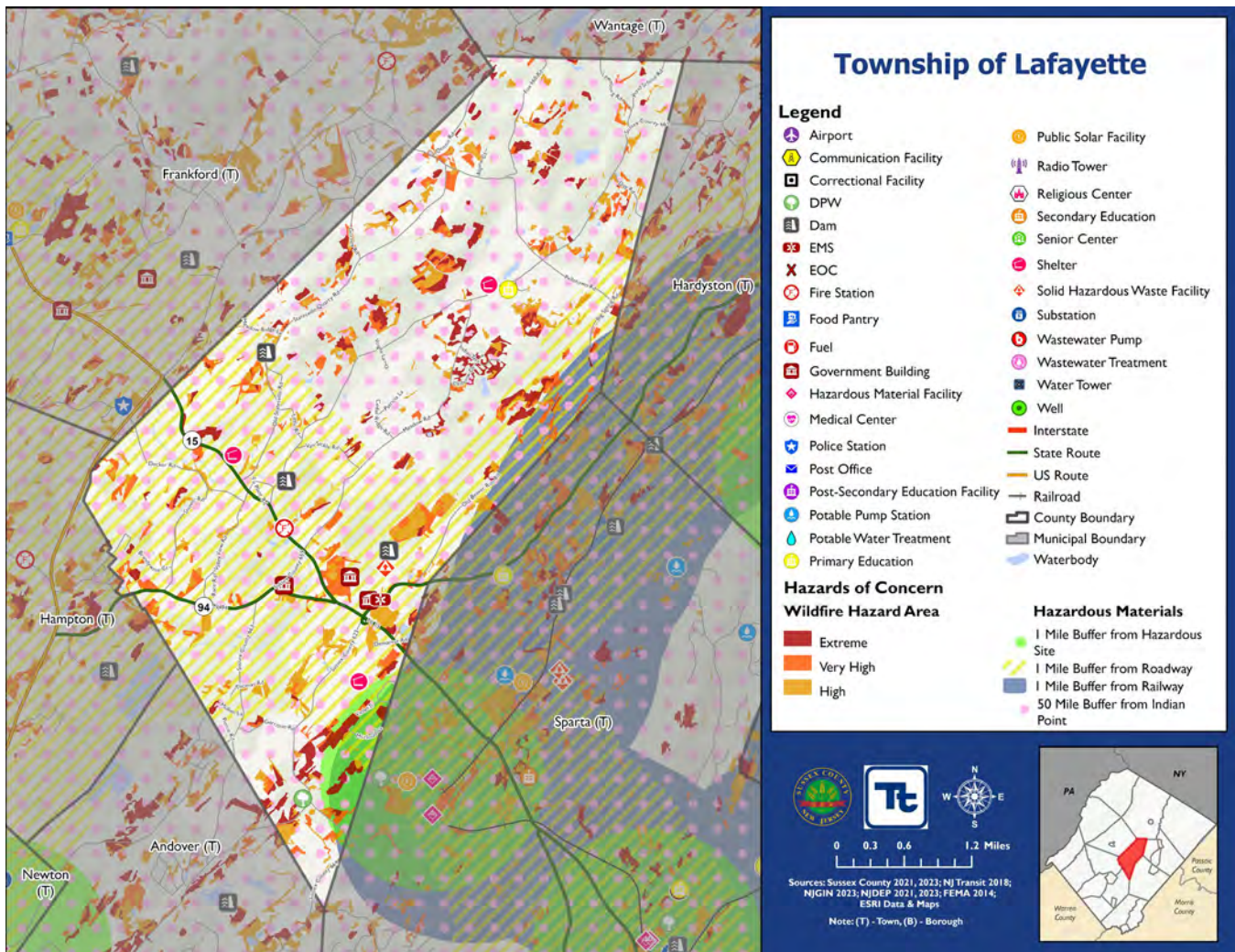
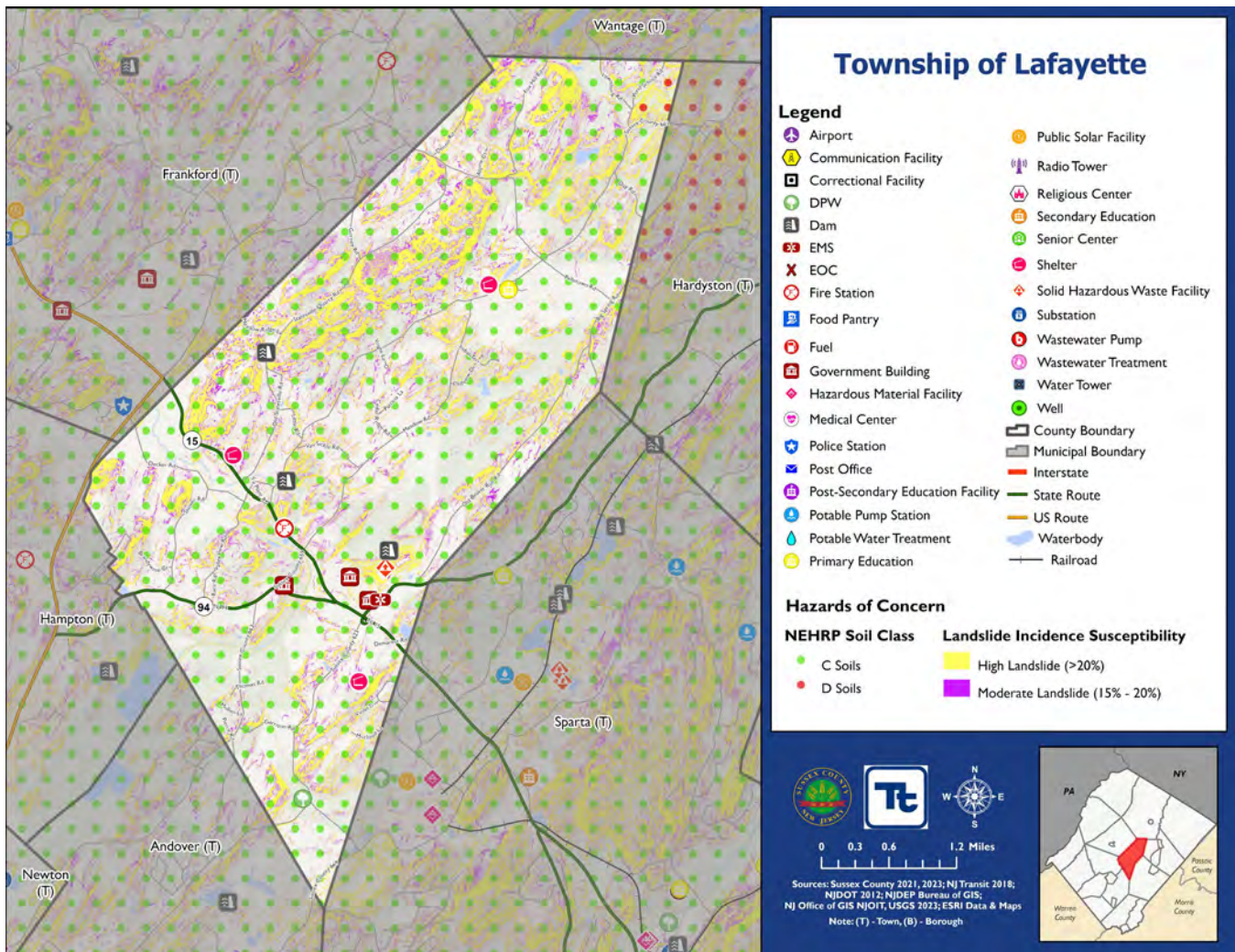




Figure 15-3. Lafayette Landslide and NEHRP Soils Hazard Area Extent and Location Map





## 15.6.2 Hazard Event History

The history of natural and non-natural hazard events in Lafayette is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 15-14 provides details on loss and damage in Lafayette during hazard events since the last hazard mitigation plan update.

Table 15-14. Hazard Event History in Lafayette

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Lafayette
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Township implemented masking and social distancing mandates. Non-emergent personnel were permitted to work from home.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Downed trees and power lines. Public Works officials assisted in the clean-up on Township maintained roadways and properties.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Heavy snowfall and high snow accumulations impacted the Township. No damages or losses occurred to Township property. Public Works officials assisted in the clean-up on Township maintained roadways and properties.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Flash flooding resulted in road closures. Public Works officials assisted in the clean-up on Township maintained roadways and properties.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 15.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Lafayette .



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Lafayette reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the hazard rankings were accurate.

Table 15-15 shows Lafayette's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 15-15. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 15-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 15-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Old Culvers Dam	Dam	Yes	Yes	2025-LafayetteTwp-05	-



Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Lafayette Garage & Maintenance	Public Works	No	Yes	2025-LafayetteTwp-05	-

Source: NJGIN 2023; Sussex County 2021, 2023

### 15.6.4 Identified Issues

After review of Lafayette's hazard event history, hazard rankings, hazard location, and current capabilities, Lafayette identified the following vulnerabilities within the community:

- The Township lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has one repetitive loss property, but other properties may be impacted by flooding as well.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has two critical facilities in the floodplain – Old Culvers Dam and the Lafayette Garage and Maintenance.
- Backup power sources are necessary to maintain critical services for critical facilities. Municipal Building does not have a generator and this area has been without power for over seven days in the past. The Township has researched and have proposals for 65kW generator with sized auto transfer switch. Natural gas was extended to the municipal building in October 2019, but the size of loads and location requires larger generator and more complicated installation resulting in higher costs.
- Backup power sources are necessary to maintain critical services for critical facilities. The Fire Department does not have a reliable and adequately sized emergency power generator. This section of the Township has been without power for more than 7 days. The Township has researched and have proposals for a 40kW generator with 400amp auto transfer switch, initial propane fueled with new tanks installed until natural gas is extended to Fire House building.
- Paulinskill Brook causes flooding when water backs up at the Rt 15 bridge and backflows into the park and recreation area. This has led to repetitive losses. This also results in blocking the major state highway and shutting down travel for days, resulting in traffic diversion onto local roads. This shuts down access to businesses located in the center of town.





- Flooding of businesses and resident homes requires Township assistance for response, as property owners may not have the proper equipment to remove flood waters. Flooded properties provide an environment for mold growth and can become harmful to the health of those who inhabit the property.
- Traffic diversion caused by flooding and debris results in increased traffic on local roads, closed businesses, and displaced residents from homes. Obtaining appropriate equipment to minimize roadway impacts would keep roads clear of floodwaters and associated debris. Traffic diversion plans can establish pre-determined routes for detours.
- Timely cleanup and removal of debris following a storm over a period of several days can overwhelm internal DPW resources, both manpower and equipment. When the single piece of equipment fails during a storm event, the Township does not have the resources or equipment to respond.
- Budgetary constraints with hiring additional staff, procuring new equipment, or contracting 3rd party consultants to mitigate, monitor, or correct a hazard. The Township has a reliance on mutual aid, for profit, and county emergency response resources for emergency response resources. The Township does not have subject matter expertise in house within municipality for mitigating a hazard or more detailed planning for the hazard.
- The Public Works facility requires improvements to protect continuity of operations and critical services. The facility does not have a roof which meets current load standards, which becomes an issue during severe winter weather and high winds associated with severe weather, hurricane, and nor'easter events. Furthermore, the facility does not have a location for sand storage, which is utilized to prepare for severe winter weather.
- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.

\* This issue was identified as a specific area of concern based on resident response to the Sussex County Hazard Mitigation Citizen survey.

## 15.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 15.7.1 Past Mitigation Action Status

Table 15-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.





### 15.7.2 Additional Mitigation Efforts

Lafayette DPW maintains a stormwater basin maintenance and management plan in which capital improvements to stormwater basins, inlets, and outfalls are performed on an annual frequency. Funding is approved annually for the inspection, maintenance, and improvement of stormwater systems.

Capital improvements to install new and higher capacity drainage systems in the Lafayette Park located along Rt 15 and the Paulinskill River. This area is prone to flooding, resulting in damage to park infrastructure and state highway Rt 15 diversion. The capital improvements will better manage the stormwater flow and lessen the potential damage to municipal owned property.

Lafayette DPW coordinates with local electric utilities for vegetation management and tree trimming along Right of Way (ROW) area to proactively remove high hazard trees and mitigate potential damage to electric power lines, roadways, and drainage systems.



Table 15-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Lafayette-001	Municipal Building Backup Generator	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter	Engineer, Public Works	<b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. Municipal Building does not have a generator and this area has been without power for over seven days in the past. The Township has researched and have proposals for 65kW generator with sized auto transfer switch. Natural gas was extended to the municipal building in October 2019 but the size of loads and location requires larger generator and more complicated installation resulting in higher costs  <b>Solution:</b> The Township will purchase and install a 65kW natural gas generator with transfer switch.	1. In Progress 2. The Township has performed preliminary engineering and developed specifications for RFP. Project was bid out but not progress forward due to the cost and is seeking funding options / grant opportunities	1. Include 2. Keep as is 3. Not applicable
2021-Lafayette-002	Fire Department Backup Generator	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter	Engineer, Public Works, Fire Department	<b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. The Fire Department does not have a reliable and adequately sized emergency power generator. This section of town has been without power for more than 7 days. The Township has researched and have proposals for a 40kW generator with 400amp auto transfer switch,	1. Complete 2. The Township proceeded with FRP and awarded the installation of backup generator with automatic transfer switch. The generator has been reliably in service since 2022	1. Completed



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<p>initial propane fueled with new tanks installed until natural gas is extended to Fire House building.</p> <p><b>Solution:</b> The Township will purchase and install a 40kW generator with 400amp auto transfer switch, initial propane fueled with new tanks installed until natural gas is extended to Fire House building. When natural gas is extended to the Fire House building, the Township will modify the generator to allow for natural gas use.</p>		
2021-Lafayette-003	Paulinskill Brook Flood Study	Flood, Severe Storm	Engineer	<p><b>Problem:</b> Paulinskill Brook causes flooding when water backs up at the Rt 15 bridge and backflows into the park and recreation area. This has led to repetitive losses. This also results in blocking the major state highway and shutting down travel for days, resulting in traffic diversion onto local roads. This shuts down access to businesses located in the center of town.</p> <p><b>Solution:</b> The Township will conduct a flood study of the area. It is assumed that the slope and drainage in this area needs significant improvements, but this is significantly impacted by the</p>	<p>1. In Progress 2. The Township was not able to secure funding for this project, but has proceeded with capital improvements to drainage areas along the Lafayette Park and Paulinskill Brook</p>	<p>1. Include 2. Keep as is 3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				blockage at the Rt 15 bridge which results in backflow of rising water into the park. Once the flood study is complete and has identified cost effective improvements, the Township will carry out the identified mitigation measures.		
2021-Lafayette-004	Portable Generators and Water Pumps	Flood, Severe Storm	OEM, Public Works	<b>Problem:</b> Flooding of public areas, businesses, and resident homes requires Township assistance for response.  <b>Solution:</b> The Township will procure additional smaller generators and water transfer pumps which can be located strategically to remove flood waters and allow for homes to remain occupied and roads to remain open.	1. No Progress 2. The Township was not able to secure funding for this project	1. Include 2. Keep as is 3. Not applicable
2021-Lafayette-005	Vacuum Truck for Stormwater Cleaning	Flood, Severe Storm	Public Works	<b>Problem:</b> Traffic diversion caused by flooding and debris results in increased traffic on local roads, closed businesses, and displaced residents from homes.  <b>Solution:</b> The Township will purchase a vacuum truck and train staff to clean out stormwater more efficiently and proactively and catch basins throughout the year and prior to storm seasons.	1. In Progress 2. The Township has researched several options for shared service of assets, leased asset, or purchase of various sized vacuum / stormwater cleaning trucks. Specifications have been prepared and reviewed options with suppliers	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Lafayette-006	Equipment for Storm Debris Response	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter	Public Works	<p><b>Problem:</b> Timely cleanup and removal of debris following a storm over a period of several days can overwhelm internal DPW resources, both manpower and equipment. When the single piece of equipment fails during a storm event, the Township does not have the resources or equipment to respond.</p> <p><b>Solution:</b> The Township will purchase the appropriately sized equipment to allow for cleanup of multiple locations such as large chippers to remove large sized branches and loaders to cleanup more areas simultaneously.</p>	1. No Progress 2. The Township was not able to secure funding for this project	1. Include 2. Keep as is 3. Not applicable
2021-Lafayette-007	Expanding Township Capabilities	Dam Failure, Disease Outbreak, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Invasive Species, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	Administration, OEM	<p><b>Problem:</b> Budgetary constraints with hiring additional staff, procuring new equipment, or contracting 3rd party consultants to mitigate, monitor, or correct a hazard. The Township does not have subject matter expertise in house within municipality for mitigating a hazard or more detailed planning for the hazard.</p> <p><b>Solution:</b> The Township will ensure pre-event plans are in place which rely on mutual aid agreements with municipal and</p>	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				county agencies / departments. The Township will also work with stakeholders who have the subject matter expertise or equipment to assess, plan for, monitor, conduct training, and as needed respond.		
2021-Lafayette-008	Expanding Township Disease Outbreak Capabilities	Disease Outbreak	Administration, OEM	<p><b>Problem:</b> The Township has limited capability to respond to disease outbreak events.</p> <p><b>Solution:</b> The Township will ensure shared service agreements are in place for the resources needed to plan for the hazard, and the equipment, monitoring, PPE, etc. needed for the hazard.</p>	<p>1. Discontinue</p> <p>2. This action ties into action 2021-Lafayette-007.</p>	<p>1. Discontinue</p> <p>2. Merge with action 2021-Lafayette-007</p> <p>3. This action ties into action 2021-Lafayette-007.</p>
2021-Lafayette-009	DPW Upgrades	Dam Failure, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	DPW	<p><b>Problem:</b> The DPW facility requires eventual upgrades to protect continuity of operations and critical services.</p> <p><b>Solution:</b> When it comes time to replace the roof of the Township DPW facility, current snow load standards will be incorporated into the design of the roof. Additional improvements include accessory building equipment building structural improvements, and sand/grit storage building structural improvements.</p>	<p>1. No Progress</p> <p>2. The Township was not able to secure funding for this project</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. Not applicable</p>





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Lafayette-010	Disaster Debris Management Plan	Dam Failure, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	DPW, OEM, Administration	<b>Problem:</b> The Township lacks a Disaster Debris Management Plan.  <b>Solution:</b> The Township will develop and adopt a Disaster Debris Management Plan.	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



### 15.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Lafayette participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Lafayette would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 15-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 15-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 15-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X	X	X			X
Disease Outbreak	X	X		X	X	X	X			X
Drought	X	X		X	X	X	X			X
Earthquake	X	X		X	X	X	X			X
Flood	X	X	X	X	X	X	X	X	X	X
Geological Hazards	X	X		X	X	X	X			X
Hazardous Materials	X	X		X	X	X	X			X
Hurricane	X	X	X	X	X	X	X	X		X
Infestation	X	X		X	X		X			X
Nor'easter	X	X	X	X	X	X	X	X		X
Severe Weather	X	X	X	X	X	X	X	X		X
Severe Winter Weather	X	X		X	X	X	X			X
Wildfire	X	X		X	X	X	X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 15-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-LafayetteTwp-01	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-LafayetteTwp-02	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-LafayetteTwp-03	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-LafayetteTwp-04	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-LafayetteTwp-05	Critical Facilities in the Floodplain	0	1	1	1	1	0	0	0	1	0	1	1	1	0	8	Medium
2025-LafayetteTwp-06	Municipal Building Backup Generator	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-LafayetteTwp-07	Fire Department Backup Generator	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-LafayetteTwp-08	Paulinskill Brook Flood Study	0	1	1	1	1	0	1	1	1	1	1	1	0	1	11	High
2025-LafayetteTwp-09	Portable Generators	1	1	0	1	1	0	0	1	1	1	0	1	1	0	9	Medium
2025-LafayetteTwp-10	Traffic Diversions Caused by Floods	1	1	1	1	1	0	1	1	1	1	1	1	0	0	11	High
2025-LafayetteTwp-11	Equipment for Storm Debris Response	1	1	1	1	1	0	1	1	1	1	1	1	0	0	11	High
2025-LafayetteTwp-12	Expanding Township Capabilities	0	1	1	1	1	1	0	1	1	1	0	1	0	1	10	Medium
2025-LafayetteTwp-13	Public Works Facility Improvements	0	1	1	1	1	0	0	0	1	1	0	1	1	1	9	Medium
2025-LafayetteTwp-14	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High



Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-LafayetteTwp-15	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High

*Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).*



## Action 2025-LafayetteTwp-01. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Building Department, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available								
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																





## Action 2025-LafayetteTwp-02. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure         <input checked="" type="checkbox"/> Disease Outbreak         <input checked="" type="checkbox"/> Drought         <input checked="" type="checkbox"/> Earthquake         <input checked="" type="checkbox"/> Flood         <input checked="" type="checkbox"/> Geological Hazards         <input checked="" type="checkbox"/> Hazardous Materials       </div> <div> <input checked="" type="checkbox"/> Hurricane         <input checked="" type="checkbox"/> Infestation         <input checked="" type="checkbox"/> Nor'easter         <input checked="" type="checkbox"/> Severe Weather         <input checked="" type="checkbox"/> Severe Winter Weather         <input checked="" type="checkbox"/> Wildfire       </div>		
<b>Description of the Problem:</b>	The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Township by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Township.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Township.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-LafayetteTwp-03. Repetitive Loss Properties

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Sussex County		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has one repetitive loss property, but other properties may be impacted by flooding as well.		
<b>Description of the Solution:</b>	The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA FMA, FMA SWIFT, Municipal Budget, County Budget, Property Owners		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	2, 3		
<b>Benefits:</b>	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>		
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR)</div> <div><input checked="" type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem continues	
	Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas	
	Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event	



## Action 2025-LafayetteTwp-04. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Planning Board, Zoning Board, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.																
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.																
<b>Estimated Cost:</b>	Staff time, Low																
<b>Potential Funding Sources:</b>	Township Budget																
<b>Implementation Timeline:</b>	Within 2 years																
<b>Goals Met:</b>	1, 2, 5																
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.																
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.																
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.																
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.																
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
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<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Only share opportunities when notified of grant funding</td><td>May not be enough time to garner interest or write application</td></tr><tr><td>Wait for information from the State on flood-damaged properties</td><td>May be a delay in notice</td></tr></table>	Action	Evaluation	No action	Current problem remains	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	Wait for information from the State on flood-damaged properties	May be a delay in notice								
Action	Evaluation																
No action	Current problem remains																
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application																
Wait for information from the State on flood-damaged properties	May be a delay in notice																



## Action 2025-LafayetteTwp-05. Critical Facilities in the Floodplain

<b>Lead Agency:</b>	Facility Managers										
<b>Supporting Agencies:</b>	Emergency Management, Floodplain Administrator										
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>										
<b>Description of the Problem:</b>	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has two critical facilities in the floodplain – Old Culvers Dam and the Lafayette Garage and Maintenance.										
<b>Description of the Solution:</b>	Coordinate with the facility managers at Old Culvers Dam and the Lafayette Public Works Facility in the Township to support the mitigation of vulnerable structures via retrofit (e.g., elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.										
<b>Estimated Cost:</b>	Medium										
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Township Budget, Facilities										
<b>Implementation Timeline:</b>	5 years										
<b>Goals Met:</b>	2										
<b>Benefits:</b>	This action will remove or reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders.										
<b>Impact on Socially Vulnerable Populations:</b>	Retrofitting or relocating the identified structures will benefit socially vulnerable populations, as individuals within these populations rely on resources from various government facilities, transportation facilities, and medical and senior care facilities.										
<b>Impact on Future Development:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.										
<b>Impact on Critical Facilities/Lifelines:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.										
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.										
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.										
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>										
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR)</div> <div><input checked="" type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>										
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><thead><tr><th>Action</th><th>Evaluation</th></tr></thead><tbody><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Floodproof existing structures</td><td>May not necessarily reduce risk</td></tr><tr><td>Construct floodwalls to stop flood issues</td><td>Will most likely interrupt natural floodplain function</td></tr></tbody></table>	Action	Evaluation	No Action	Current problem remains	Floodproof existing structures	May not necessarily reduce risk	Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function		
Action	Evaluation										
No Action	Current problem remains										
Floodproof existing structures	May not necessarily reduce risk										
Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function										



## Action 2025-LafayetteTwp-06. Municipal Building Backup Generator

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works, Emergency Management, Township Administration		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	Backup power sources are necessary to maintain critical services for critical facilities. Municipal Building does not have a generator and this area has been without power for over seven days in the past. The Township has researched and have proposals for 65kW generator with sized auto transfer switch. Natural gas was extended to the municipal building in October 2019 but the size of loads and location requires larger generator and more complicated installation resulting in higher costs.		
<b>Description of the Solution:</b>	The Township will purchase and install a 65kW natural gas generator with transfer switch.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5, 6, 7		
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	



## Action 2025-LafayetteTwp-07. Fire Department Backup Generator

<b>Lead Agency:</b>	Engineering										
<b>Supporting Agencies:</b>	Public Works, Emergency Management, Township Administration, Fire Department										
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>										
<b>Description of the Problem:</b>	Backup power sources are necessary to maintain critical services for critical facilities. The Fire Department does not have a reliable and adequately sized emergency power generator. This section of the Township has been without power for more than 7 days. The Township has researched and have proposals for a 40kW generator with 400amp auto transfer switch, initial propane fueled with new tanks installed until natural gas is extended to Fire House building.										
<b>Description of the Solution:</b>	The Township will purchase and install a 40kW generator with 400amp auto transfer switch, initial propane fueled with new tanks installed until natural gas is extended to Fire House building. When natural gas is extended to the Fire House building, the Township will modify the generator to allow for natural gas use.										
<b>Estimated Cost:</b>	Medium										
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget										
<b>Implementation Timeline:</b>	Within 5 years										
<b>Goals Met:</b>	1, 2, 5, 6, 7										
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.										
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.										
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.										
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.										
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.										
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.										
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)										
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)										
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1" style="width: 100%;"> <thead> <tr> <th>Action</th><th>Evaluation</th></tr> </thead> <tbody> <tr> <td>No Action</td><td>Current problem remains</td></tr> <tr> <td>Microgrid</td><td>Costly and difficult to implement.</td></tr> <tr> <td>Solar panels and battery backup</td><td>Solar power is unlikely to be able to provide battery power for extended power failure events.</td></tr> </tbody> </table>			Action	Evaluation	No Action	Current problem remains	Microgrid	Costly and difficult to implement.	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.
Action	Evaluation										
No Action	Current problem remains										
Microgrid	Costly and difficult to implement.										
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.										





## Action 2025-LafayetteTwp-08. Paulinskill Brook Flood Study

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Paulinskill Brook causes flooding when water backs up at the Rt 15 bridge and backflows into the park and recreation area. This has led to repetitive losses. This also results in blocking the major state highway and shutting down travel for days, resulting in traffic diversion onto local roads. This shuts down access to businesses located in the center of town.		
<b>Description of the Solution:</b>	The Township will conduct a flood study of the area. It is assumed that the slope and drainage in this area needs significant improvements, but this is significantly impacted by the blockage at the Rt 15 bridge which results in backflow of rising water into the park. Once the flood study is complete and has identified cost effective improvements, the Township will carry out the identified mitigation measures.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	HMGP, BRIC, Township budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 7		
<b>Benefits:</b>	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding along flood prone roads.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.		
<b>Impact on Capabilities:</b>	Not Applicable		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input checked="" type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input checked="" type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem continues	
	Deepen Paulinskill Brook	Costly and unlikely to solve problem	
	Remove Rt. 15 bridge	Not possible	



## Action 2025-LafayetteTwp-09. Portable Generators

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works, Emergency Management, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input checked="" type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Flooding of businesses and resident homes requires Township assistance for response, as property owners may not have the proper equipment to remove flood waters. Flooded properties provide an environment for mold growth and can become harmful to the health of those who inhabit the property.																
<b>Description of the Solution:</b>	The Township will procure additional smaller generators and water transfer pumps which can be located strategically to remove flood waters and allow for properties to remain occupied and roads to remain open.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5, 6, 7																
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.																
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.																
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<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Microgrid</td><td>Costly and difficult to implement.</td></tr><tr><td>Solar panels and battery backup</td><td>Solar power is unlikely to be able to provide battery power for extended power failure events.</td></tr></table>			Action	Evaluation	No Action	Current problem remains	Microgrid	Costly and difficult to implement.	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.						
Action	Evaluation																
No Action	Current problem remains																
Microgrid	Costly and difficult to implement.																
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.																



## Action 2025-LafayetteTwp-10. Traffic Diversions Caused by Floods

<b>Lead Agency:</b>	Public Works		
<b>Supporting Agencies:</b>	Police Department, Emergency Management, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Traffic diversion caused by flooding and debris results in increased traffic on local roads, closed businesses, and displaced residents from homes. Obtaining appropriate equipment to minimize roadway impacts would keep roads clear of floodwaters and associated debris. Traffic diversion plans can establish pre-determined routes for detours.		
<b>Description of the Solution:</b>	The Township will purchase a vacuum truck and train staff to clean out stormwater more efficiently and proactively and catch basins throughout the year and prior to storm seasons. The Police Department will work to complete a traffic diversion plan to detail pre-determined detours around repetitively flooded areas.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, Township Budget		
<b>Implementation Timeline:</b>	4 years		
<b>Goals Met:</b>	1, 2, 7		
<b>Benefits:</b>	This action will protect the transportation lifeline by keeping roadways open and clear for emergency response, increase and strengthen the Township's stormwater management program, and protect constituents by instituting and implementing a pre-determined Traffic Diversion Plan.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding along impacted roads.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.		
<b>Impact on Capabilities:</b>	This action will expand the Township's stormwater response and planning capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Do not complete a traffic diversion plan	May cause an increase in confusion during heavy rain and flooding events	
	Find contractor	Contractor may not be immediately available	



## Action 2025-LafayetteTwp-11. Equipment for Storm Debris Response

<b>Lead Agency:</b>	Public Works																
<b>Supporting Agencies:</b>	Emergency Management																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Timely cleanup and removal of debris following a storm over a period of several days can overwhelm internal DPW resources, both manpower and equipment. When the single piece of equipment fails during a storm event, the Township does not have the resources or equipment to respond.																
<b>Description of the Solution:</b>	The Township will purchase the appropriately sized equipment to allow for cleanup of multiple locations such as large chippers to remove large sized branches and loaders to cleanup more areas simultaneously.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	HMGP, BRIC, Township Budget																
<b>Implementation Timeline:</b>	4 years																
<b>Goals Met:</b>	1, 2, 6																
<b>Benefits:</b>	This action increases the Township's ability to recover from a hazard by removing potentially dangerous vegetative debris from roadways. The action benefits the transportation lifelines, as clear roadways allow evacuations, regular travel, and emergency responses to occur.																
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by hazards which cause vegetative debris. The removal of vegetative debris lowers the risk of potential injury.																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.																
<b>Impact on Capabilities:</b>	This action will expand the Township's recovery capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to and recover from these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Upgrade existing equipment</td><td>Needed upgrades may not be compatible with existing machinery</td></tr><tr><td>Find contractor</td><td>Contractor may not be immediately available</td></tr></table>	Action	Evaluation	No action	Current problem remains	Upgrade existing equipment	Needed upgrades may not be compatible with existing machinery	Find contractor	Contractor may not be immediately available								
Action	Evaluation																
No action	Current problem remains																
Upgrade existing equipment	Needed upgrades may not be compatible with existing machinery																
Find contractor	Contractor may not be immediately available																



## Action 2025-LafayetteTwp-12. Expanding Township Capabilities

<b>Lead Agency:</b>	Township Administration		
<b>Supporting Agencies:</b>	Emergency Management, Police Department, Fire Department, Sussex County, Surrounding Municipalities		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	Budgetary constraints with hiring additional staff, procuring new equipment, or contracting 3rd party consultants to mitigate, monitor, or correct a hazard. The Township has a reliance on mutual aid, for profit, and county emergency response resources for emergency response resources. The Township does not have subject matter expertise in house within municipality for mitigating a hazard or more detailed planning for the hazard.		
<b>Description of the Solution:</b>	The Township will ensure pre-event plans are in place which rely on mutual aid agreements with municipal and county agencies / departments. The Township will also work with stakeholders who have the subject matter expertise or equipment to assess, plan for, monitor, conduct training, and as needed respond. The Township will maintain its mutual aid agreements and search for grants which permit the hiring of staff.		
<b>Estimated Cost:</b>	Medium, but may vary depending on activity		
<b>Potential Funding Sources:</b>	BRIC, EMPG, HSGP, HMGP, Township Budget, County Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	5, 6		
<b>Benefits:</b>	This action will continue the Township's participation in mutual aid agreements with surrounding municipalities, hire additional staff, and identify and work with subject matter experts.		
<b>Impact on Socially Vulnerable Populations:</b>	Populations will benefit from the Township having expanded safety and security lifelines, trained employees, and additional staff.		
<b>Impact on Future Development:</b>	Not Applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	The safety and security lifeline will be maintained through the use of mutual aid.		
<b>Impact on Capabilities:</b>	This action will increase the staffing, equipment, training, and mutual aid capabilities of the Township.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to and recover from these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Rely only on mutual aid	Mutual aid may not be available as neighboring communities are likely to be impacted by a hazard event as well	
	Rely just on grants for funding to hire staff	Grant funds may run out	



## Action 2025-LafayetteTwp-13. Public Works Facility Improvements

<b>Lead Agency:</b>	Public Works																
<b>Supporting Agencies:</b>	Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Public Works facility requires improvements to protect continuity of operations and critical services. The facility does not have a roof which meets current load standards, which becomes an issue during severe winter weather and high winds associated with severe weather, hurricane, and nor'easter events. Furthermore, the facility does not have a location for sand storage, which is utilized to prepare for severe winter weather.																
<b>Description of the Solution:</b>	The roof of the Township Public Works facility must be improved to current load standards. Additional improvements include accessory building equipment, building structural improvements, and sand/grit storage building structural improvements.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	BRIC, Township Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	2, 5, 6																
<b>Benefits:</b>	Improvements to the Public Works facility will ensure the structure is safe and has adequate space to work in. These improvements will ensure the Department is able to perform its regular operations.																
<b>Impact on Socially Vulnerable Populations:</b>	Populations will benefit from the improvements to the Public Works facility, as the Department performs stormwater management operations, removes vegetative debris, maintain Township's roads, and remove garbage and recycling.																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	The Public Works facility will be able to maintain its functionality and expand to anticipated needs to support its operations.																
<b>Impact on Capabilities:</b>	Not Applicable																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will allow the Public Works department to continue its operations during hazardous events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Knock down building and construct a new one</td><td>Cost prohibitive</td></tr><tr><td>Move Public Works into an already existing facility</td><td>Work space may not be adequate</td></tr></table>			Action	Evaluation	No action	Current problem remains	Knock down building and construct a new one	Cost prohibitive	Move Public Works into an already existing facility	Work space may not be adequate						
Action	Evaluation																
No action	Current problem remains																
Knock down building and construct a new one	Cost prohibitive																
Move Public Works into an already existing facility	Work space may not be adequate																





## Action 2025-LafayetteTwp-14. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Building Department, Township Administration, NFIP State Coordinator, FEMA Regional Office																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.																
<b>Description of the Solution:</b>	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	2, 5																
<b>Benefits:</b>	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.																
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.																
<b>Impact on Capabilities:</b>	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.																
<b>Climate Change Considerations:</b>	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem exists</td></tr><tr><td>Modify existing flood damage prevention ordinance</td><td>Time intensive</td></tr></table>	Action	Evaluation	No Action	Current problem exists	Modify existing flood damage prevention ordinance	Time intensive										
Action	Evaluation																
No Action	Current problem exists																
Modify existing flood damage prevention ordinance	Time intensive																



	Leave NFIP	Residents lose flood insurance coverage
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## Action 2025-LafayetteTwp-15. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP) </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP) </div> </div>		
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI) </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES) </div> </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<div style="display: flex; justify-content: space-between;"> <div><b>Action</b></div> <div><b>Evaluation</b></div> </div>		



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## 16. TOWNSHIP OF MONTAGUE

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Montague with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Montague, describes who participated in the planning process, assesses Montague's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 16.1 HAZARD MITIGATION PLANNING TEAM

The Township of Montague identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 16-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 16-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Dave Coss, EMC Address: 277 Clove Road, Montague, NJ 07827 Phone Number: (908) 319-1811 Email: coss1101@yahoo.com	Name/Title: Jesse Brace-Revak, Deputy EMC Address: 277 Clove Road, Montague, NJ 07827 Phone Number: (908) 319-1813 Email: jbrace81@yahoo.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Bob Huber, Construction Official Address: 277 Clove Road, Montague, NJ 07827 Phone Number: (973) 293-3366 Email: construction@montaguenj.org	
<b>Additional Contributors</b>	
Name/Title: Dave Coss, EMC Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved draft annex.	
Name/Title: Jesse Brace-Revak, Deputy EMC/Flood Mitigation Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Harold E. Pellow, Township Engineer Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved draft annex.	
Name/Title: Tom Knutelsky, Township Planner Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: George Zitone, Mayor Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved draft annex.	
Name/Title: George Hutnick, Code Enforcement Method of Participation: Assisted in the completion of municipal worksheets.	



Primary Point of Contact	Alternate Point of Contact
Name/Title: Bob Huber, Construction Official Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved draft annex.	
Name/Title: Dana Klinger, Municipal Clerk/Administrator Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved draft annex.	
Name/Title: Kyle Gottemoller, Assist DPW Foreman Method of Participation: Assisted in the completion of municipal worksheets.	

## 16.2 COMMUNITY PROFILE

Montague Township is located in the northwest corner of Sussex County. It is bordered to the north by New York State, to the south by Frankford and Sandyston Townships, to the east by Wantage Township and to the west by Pennsylvania. The Township covers a total area of 43.9 square miles. The following unincorporated communities are located within the Township: Four Corners, Montague, Millville, and Duttonville. The Delaware River makes up the northern and western border between the Township and Pennsylvania. Big Flat Brook is a stream located in the southern end of the Township. There are many ponds and lakes located throughout the Township as well.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 3.2 percent of the population is 5 years of age or younger, 3.3 percent is 65 years of age or older, 4.3 percent is non-English speaking, 2.4 percent is below the poverty threshold, and 2.5 percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Township of Montague, 33 percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 16.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Montague performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events





For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Montague to identify opportunities for integrating mitigation concepts into ongoing Township procedures.

### 16.3.1 Planning and Regulatory Capability and Integration

Table 16-2 summarizes the planning and regulatory tools that are available to Montague.

Table 16-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	Chapter 32: Uniform Construction Codes	State & Local	Construction Official
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>There is hereby established in the Township of Montague a State Uniform Construction Code enforcing agency to be known as the "Building Department," consisting of a Construction Official, Building Subcode Official, Plumbing Subcode Official, Electrical Subcode Official and such other subcode officials for such additional subcodes as the Commissioner of the Department of Community Affairs, State of New Jersey, shall hereafter adopt as part of the State Uniform Construction Code. The Construction Official shall be the chief administrator of the enforcing agency.</i></p>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 76: Zoning	Local	Land Use Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.</i></p>				
<b>Subdivision Code</b>	Yes	Chapter 60: Subdivision of Land	Local	Land Use Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.</i></p>				
<b>Site Plan Code</b>	Yes	Chapter 55: Site Plan Review	Local	Land Use Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Approval of a site plan is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.</i></p>				
<b>Stormwater Management Code</b>	Yes	Chapter 56: Stormwater Control	Local	Township Committee
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
--	---------------------------------------	--	---	--

*The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.*

**Post-Disaster Recovery/  
Reconstruction Code**

No

-

-

-

How has or will this be integrated with the HMP and how does this reduce risk?

**Real Estate Disclosure  
Requirements**

Yes

Senate Bill 3110; P. L. 2023,  
c. 93, July 3, 2023

State

Sellers and Landlords  
of commercial or  
residential property

How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<p>information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.</p> <ul style="list-style-type: none"> <li>Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?</li> <li>Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?</li> </ul> <p>Not all provisions of this law have become effective at the time of the writing of this plan.</p>				
<b>Growth Management</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Environmental Protection Ordinance(s)</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 38: Flood Damage Prevention	State & Local	Township Engineer
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:</i></p> <ul style="list-style-type: none"> <li><i>A. Protect human life and health;</i></li> <li><i>B. Minimize expenditure of public money for costly flood control projects;</i></li> <li><i>C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;</i></li> <li><i>D. Minimize prolonged business interruptions;</i></li> <li><i>E. Minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;</i></li> <li><i>F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;</i></li> <li><i>G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and</i></li> <li><i>H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</i></li> </ul>				
<b>Wellhead Protection</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Emergency Management Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Change Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	Montague Township Master Plan Adopted March 11, 2004, Reexamination September 2022	Local	Land Use Board Committee
How has or will this be integrated with the HMP and how does this reduce risk? The Master plan shall generally comprise a report or statement and land use and development proposals, with maps, diagrams, and text, presenting a land use plan element taking into account natural conditions, including, but not limited to, topography, soil conditions, water supply, drainage, floodplain areas, marshes, and woodlands. Showing the existing and proposed location, extent, and intensity of development of land to be use in the future of varying types of residential, commercial, industrial, agricultural, recreational, educational, and other public and private purposes and stating the relationship thereof to existing any proposed zoning plan and zoning ordinances, and showing the existing location of any airports and the boundaries of any airport safety zones. A housing plan element, a community facilities plan element, and a conservation plan element.				
<b>Capital Improvement Plan</b>	Yes	Township Budget	Local	Township Committee
How has or will this be integrated with the HMP and how does this reduce risk? <i>The municipal budget, which acts as the Township's Capital Improvement Plan, includes various potential projects which may assist in hazard mitigation efforts.</i>				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Agriculture Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Township of Montague EOP, May 9, 2023	County & Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Operations Plan aims to assess the Township's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	Yes	Township of Montague EOP, May 9, 2023	County & Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Post-Disaster Recovery Plan, a portion of the Emergency Operations Plan, aims to assess the Township's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i>				
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 16.3.2 Development and Permitting Capability

Table 16-3 summarizes the capabilities of Montague to oversee and track development.

Table 16-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	Construction Department
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain development
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	-
Describe the level of buildout in your jurisdiction.	N/A	The build out in the Township is nearly at its peak. Much of the Township is zoned as a conservation district, which limits any future development.

### 16.3.3 Administrative and Technical Capability

Table 16-4 summarizes potential staff and personnel resources available to Montague and their current responsibilities that contribute to hazard mitigation.





Table 16-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Montague Township Land Use Board acts as both the Planning Board and the Board of Adjustment. The Land Use Board will assume all statutory duties currently handled by the Montague Township Planning Board and the Montague Township Zoning Board of Adjustment. The Montague Township Land Use Board consists of nine members and two alternate members, as appointed by the Mayor and Township Committee.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission		<p>The Mayor may appoint one or more persons as a Citizens' Advisory Committee to assist or collaborate with the Land Use Board in its duties, but such person or persons shall have no power to vote or take other action required of the Board. Such person or persons shall serve at the pleasure of the Mayor.</p> <p>Whenever the Environmental Commission has prepared and submitted to the Land Use Board an index of the natural resources of the municipality, the Land Use Board shall make available to the Environmental Commission an informational copy of every application for development to the Land Use Board. Failure of the Land Use Board to make such informational copy available to the Environmental Commission shall not invalidate any hearing or proceeding.</p>
Open Space Board/Committee	No	-
Economic Development Commission/Committee		The Economic Development Committee has the following powers and duties inquire into, survey and publicize the extent, advantages, and utility of vacant land within the township; classify such vacant land according to its adaptability for the settlement thereon of various types of business, professional and industrial enterprise; study and analyze various businesses, industries, and professions with a view to ascertaining the opportunities for expansion of such business, industries, and professions within the township; recommend to the Township Committee advertising the economic advantages and opportunities and availability of real estate in the township; and to encourage and accomplish business, industrial and professional settlement within the township.
Public Works/Highway Department	Yes	The Department of Public Works attend to various projects within Montague including snow removal activities and the maintenance of Township roads.
Construction/Building/Code Enforcement Department	Yes	The Construction Department is responsible for enforcement of the NJ Uniform Construction Code.



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Emergency Management/Public Safety Department	Yes	The Township has an Emergency Management Coordinator and an Emergency Management Deputy Coordinator.  The Fire Prevention Division is responsible for life safety issues within the community. The division is involved with construction, occupancy inspections, public education, and fire investigations. Fire inspections ensure that buildings and fire protection systems are built and maintained according to the applicable codes. The Fire Prevention Division performs fire plan checks and inspections for fire sprinklers, alarms, and other systems. Fire construction permits are required to construct, alter, modify, or repair a fire protection system.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	The Department of Public Works is responsible for Stormwater Management activities.
Mutual aid agreements	Yes	Fire/DPW
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Harold E. Pellow & Associates
Engineers or professionals trained in building or infrastructure construction practices	Yes	Harold E. Pellow & Associates
Planners or engineers with an understanding of natural hazards	Yes	Harold E. Pellow & Associates
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	Yes	The Senior Citizens of Montague Township, Inc. meets on the second Friday of each month.
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	OEM
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-



### 16.3.4 Fiscal Capability

Table 16-5 summarizes financial resources available to Montague.

Table 16-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Yes, Clean Water Act 319 Grants

### 16.3.5 Education and Outreach Capability

Table 16-6 summarizes the education and outreach resources available to Montague.

Table 16-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Mayor and Township Committee
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	The Township can utilize the County's reverse messaging system.
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	The Senior Citizens of Montague Township, Inc. meets on the second Friday of each month.
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-



### 16.3.6 Community Classifications

Table 16-7 summarizes classifications for community programs available to Montague.

Table 16-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	Unavailable	Unavailable
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	6/9	Being Reviewed
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 16.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 16-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 16-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Weak
Disease Outbreak	Weak
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Weak
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Weak
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate



Hazard	Adaptive Capacity - Strong/Moderate/Weak
Wildfire	Moderate

## 16.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 16-1 is responsible for maintaining this information.

### 16.4.1 NFIP Statistics

Table 16-9 summarizes the NFIP policy and claim statistics for Montague.

Table 16-9. Montague NFIP Summary of Policy and Claim Statistics

# Policies	13
# Claims (Losses)	17
Total Loss Payments	\$178,247.79
# Repetitive Loss Properties (NFIP definition)	3
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA Region II 2024

### 16.4.2 Flood Vulnerability Summary

Table 16-10 provides a summary of the NFIP program in Montague.

Table 16-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Township occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No



NFIP Topic	Comments
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	No
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Construction Official / Township Engineer
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, online FEMA, State, and regional resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would consider attending continuing education and/or certification training on floodplain management if it were offered in the County.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review, engineering capability
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Staff and funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Unknown
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 38: Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	September 13, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Land Use Board considers efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has subdivision and site plan ordinances.





NFIP Topic	Comments
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 16.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 16-11 through Table 16-13.

Table 16-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	2	0	1	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	3	0	1	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	3	0	1	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	6	0	0	0
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	4	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 16-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
The Township has not had any recent major development or infrastructure from 2019 to present.					

\* Only location-specific hazard zones or vulnerabilities identified.



Table 16-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
The Township does not anticipate any major development or infrastructure in the next five (5) years.					

## 16.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Montague's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 16.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 16-1 through Figure 16-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Montague has significant exposure. The maps show the location of potential new development, where available.



Figure 16-1. Montague Flood and Sinkhole Hazard Area Extent and Location Map

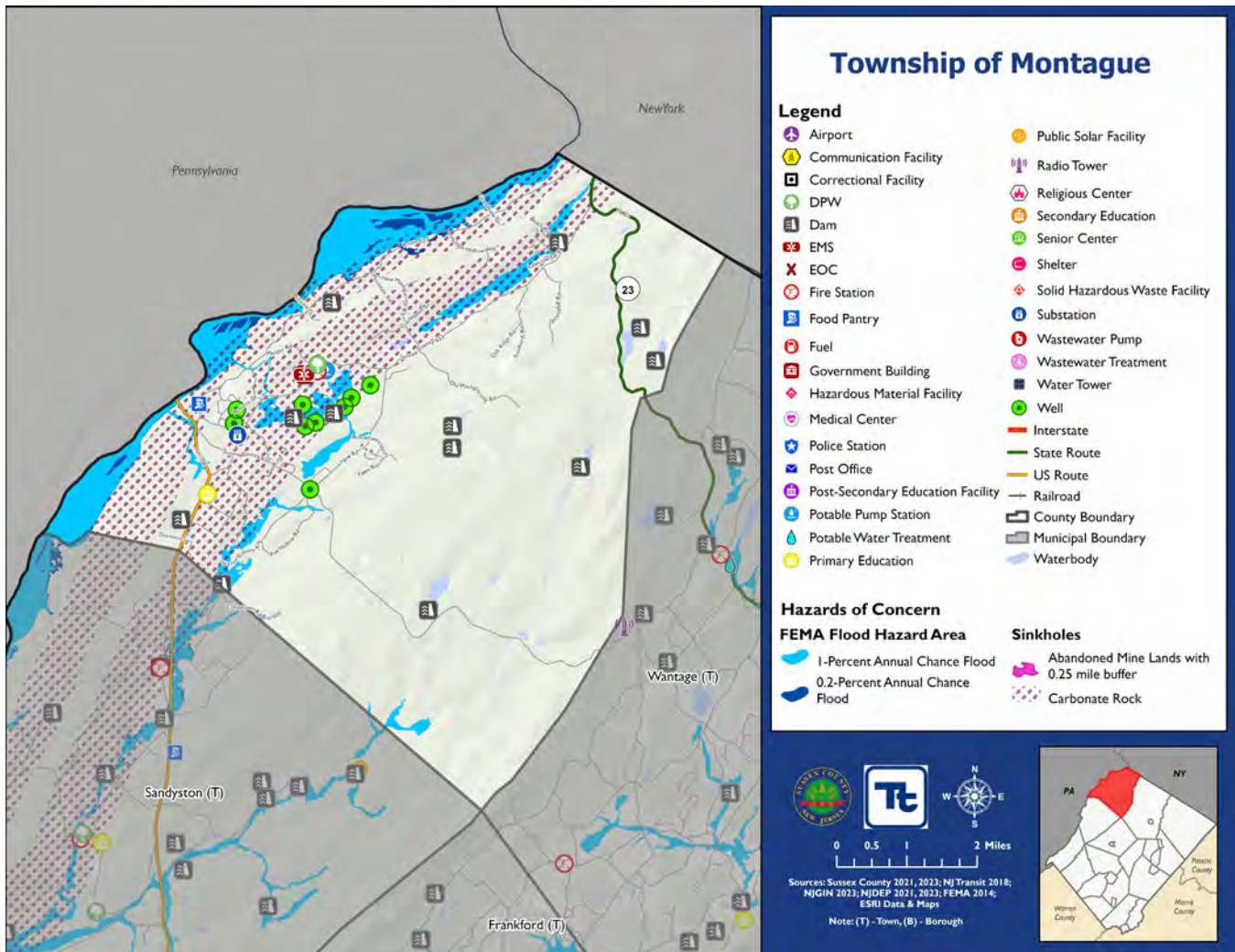


Figure 16-2. Hazardous Materials and Wildfire Hazard Area Extent and Location Map

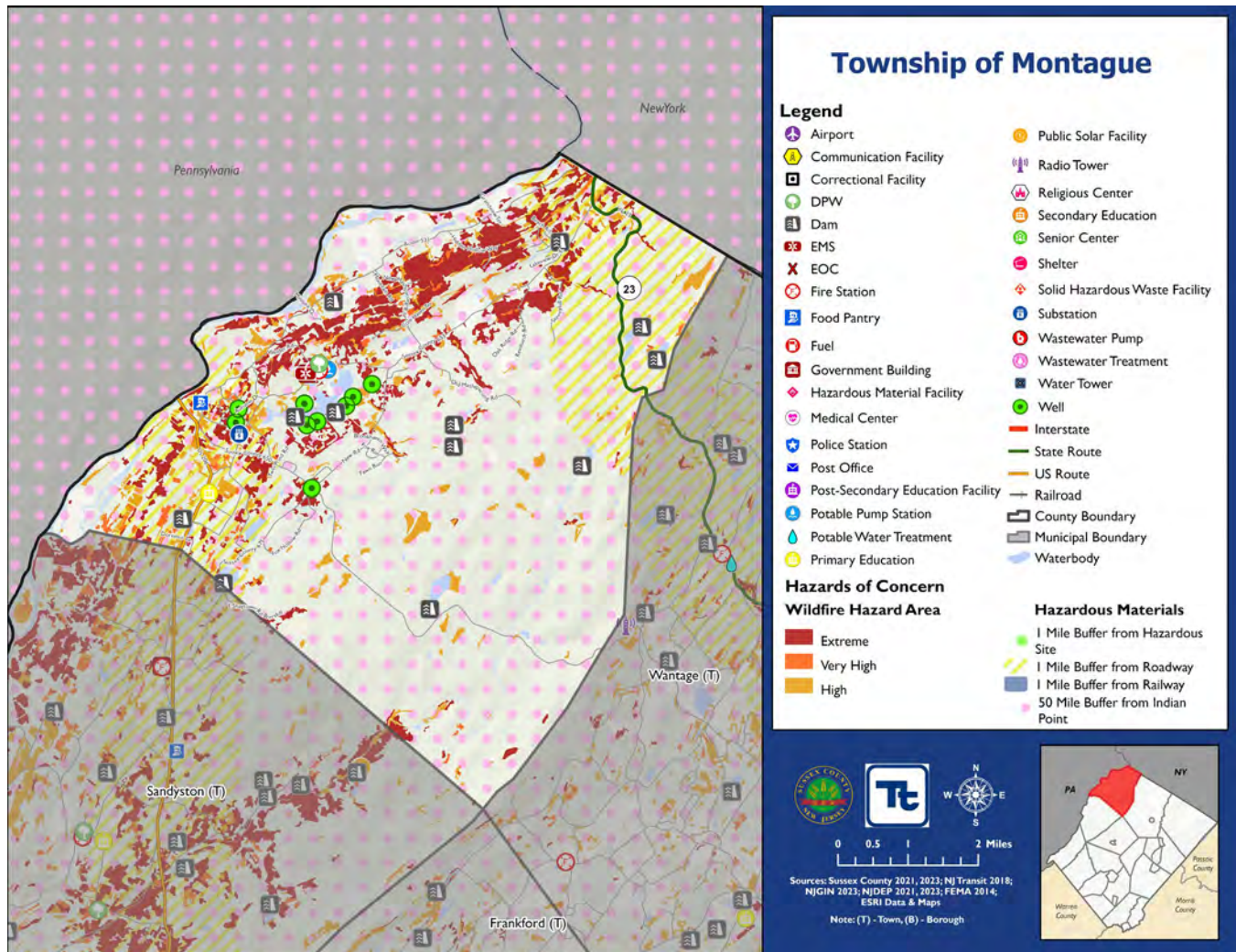
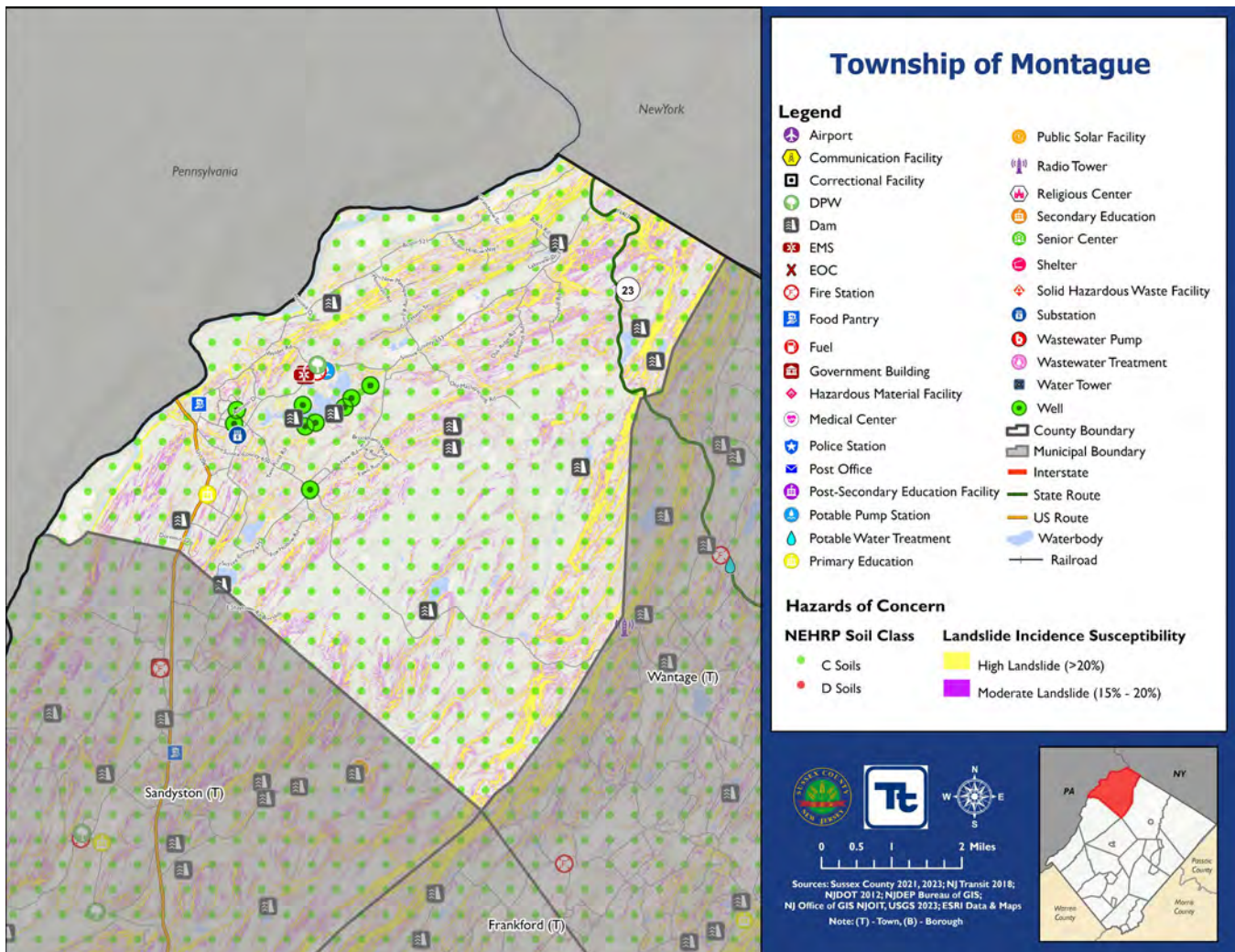






Figure 16-3. Landslide and NEHRP Soils Hazard Area Extent and Location Map





## 16.6.2 Hazard Event History

The history of natural and non-natural hazard events in Montague is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 16-14 provides details on loss and damage in Montague during hazard events since the last hazard mitigation plan update.

Table 16-14. Hazard Event History in Montague

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Montague
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	Montague Township was aided by county resources and supplies
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Loss of Power Minor Road wash out/Flooding Debris and Fallen Trees Down Power Lines/Poles
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Snow Removal Tree/Power Poles down Loss of Power
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Minor roadway flooding Loss of Power Trees down

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 16.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Montague .

### Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of





the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Montague reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the rankings were accurate.

Table 16-15 shows Montague's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 16-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 16-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 16-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Biccum Dam	Dam	Yes	Yes	2025-MontagueTwp-09	-
Clove Lake Dam	Dam	Yes	Yes	2025-MontagueTwp-09	-
Hainesville WMA Dam	Dam	Yes	Yes	2025-MontagueTwp-09	-

Source: NJGIN 2023; Sussex County 2021, 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Montague:



- Steenykill Lake Dam

### 16.6.4 Identified Issues

After review of Montague's hazard event history, hazard rankings, hazard location, and current capabilities, Montague identified the following vulnerabilities within the community:

- Recent storm events have resulted in severe rainfall which have overwhelmed culverts and caused flooding. It is assumed that some culverts may be undersized and contribute to flooding. The culvert located at Highpoint Country Club (private community) is undersized and compromised during storm and flood events.
- The status of the Township's bridges and causeway in relation to ability to withstand hazard events is unknown. Failure of bridges or causeways could result in loss to life and limitations to emergency access.
- Dams in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.
- The Township lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has three repetitive loss properties, but other properties may be impacted by flooding as well.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Biccum Dam, Clove Lake Dam, and Hainesville WMA Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has a high-hazard potential dam, the Steenykill Lake Dam, within its jurisdiction. These structures have the potential to impact those living nearby.
- The Montague Township Elementary School, located at 475 Route 206, has been identified as a sheltering location but lacks a backup power source. The new fire station/community center/shelter, located at 274 Clover Road, is a lifeline for the Township and provides essential services to the municipality and its residents. It currently does not have a backup generator to provide continuity of operations during a power outage and serve as a shelter to the community.
- The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meeting New Jersey's minimum requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP



regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.

- It is unknown if the windows of the Township hall building located at 277 Clover Road are impact resistant. Impact resistant windows provide a barrier during severe weather and severe winter weather events. High winds associated with these hazards can blow debris into windows, potentially endangering those inside the structure, as well as damaging the structure itself, if the windows are not impact resistant.
- Montague Township is located within the northwest corner of the State and sits along the Delaware River. Several state and national parks are located within the Township, providing acres of forested land. This creates an increased risk of wildfires to residents who border the forested areas.
- Montague Township is located within the northwest corner of the State and sits along the Delaware River. Properties located along the Delaware River are susceptible to flooding and damages.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- Steenykill Lake Dam is a Class I High Hazard Dam that is located on Steeny Kill Lake. The dam is owned by the New Jersey Division of Parks and Forestry. Failure of the dam could result in inundation of forested areas, recreational areas, and roadways including State Route 23. The dam was last inspected in 2022 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 16.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 16.7.1 Past Mitigation Action Status

Table 16-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 16.7.2 Additional Mitigation Efforts

Montague did not identify any additional mitigation efforts completed since the last HMP.



Table 16-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Montague-001	Backup Generator for Fire House/Community Center / Shelter	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter	Engineer, Township OEM, Administration	<p><b>Problem:</b> The new fire house/community center/shelter, located at 274 Clover Road, is a lifeline for the Township and provides essential services to the municipality and its residents. It currently does not have a backup generator to provide continuity of operations during a power outage and serve as a shelter to the community.</p> <p><b>Solution:</b> Working with the Township Engineer, determine the proper type and size of generator for the facility. Once determined, obtain funding and purchase generator. Once purchased, install generator.</p>	1. Completed 2. Not Applicable	1. Discontinue. 2. Not Applicable 3. The Township has installed the proper type and size generator to operate the fire house/community center/shelter, located at 275 Clover Road.
2021-Montague-002	Backup Generator for Elementary School:	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter	Engineer, Township OEM, Administration, School Board	<p><b>Problem:</b> The Montague Township Elementary School at 475 Route 206 lacks a backup power source.</p> <p><b>Solution:</b> The Engineer will research what size generator is needed to power the Montague Township Elementary School. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Montague Township Elementary School.</p>	1. No Progress. 2. Challenges with funding.	1. Keep in the 2025 HMP 2. Not Applicable 3. Not Applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Montague-003	Repetitive Loss Properties	Flood, Severe Weather	FPA, Homeowners	<p><b>Problem:</b> Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 2 repetitive loss properties, but other properties may be impacted by flooding as well.</p> <p><b>Solution:</b> Conduct outreach to 10 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information, and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	1. No Progress 2. The Township focused on other priorities which prevented progress on this action.	1. Keep in the 2025 HMP. 2. Not Applicable 3. Not Applicable
2021-Montague-004	Develop Debris Management Plan	Dam Failure, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical	OEM, Public Works	<p><b>Problem:</b> The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.</p> <p><b>Solution:</b> The Township will develop a debris management plan that will assist the municipality when they</p>	1. No Progress 2. Challenges with funding availability	1. Keep in the 2025 HMP. 2. Not Applicable 3. Not Applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Storm, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire		need to facilitate response and recovery after a debris-causing incident. The plan will provide direction to facilitate and coordinate the management of debris following a disaster.		
2021-Montague-005	Update Flood Damage Prevention Ordinance	Flood	Township Administration, Engineer	<b>Problem:</b> The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meet New Jersey's minimum requirement.  <b>Solution:</b> The Township will update its flood damage prevention ordinance to meet the New Jersey requirement of one foot of freeboard.	1. No Progress 2. The Township focused on other priorities which prevented progress on this action.	1. Keep in the 2025 HMP 2. Not Applicable 3. Not Applicable
2021-Montague-006	Impact Resistant Windows and Shutters for the Township Hall	Hurricane, Nor'easter, Severe Weather, Severe Winter Weather	OEM, Public Works	<b>Problem:</b> It is unknown if the windows of the Township Hall building located at 277 Clover Road are impact resistant.  <b>Solution:</b> The Township will conduct a study to determine whether or not the windows of the township hall are impact resistant. If not, the Township will retrofit municipal building with impact resistant windows and shutters.	1. No Progress 2. Challenges with funding availability.	1. Keep in the 2025 HMP. 2. Not Applicable 3. Not Applicable





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Montague-007	Firewise	Wildfire	Township Administration, Fire Department	<p><b>Problem:</b> Montague Township is located within the northwest corner of the State and sits along the Delaware River. Several state and national parks are located within the Township, providing acres of forested land. This creates an increased risk of wildfires to residents who border the forested areas.</p> <p><b>Solution:</b> The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up town hall meetings.</p>	1. In Progress 2. The Township focused on other priorities which prevented progress on this action.	1. Keep in the 2025 HMP 2. Not Applicable 3. Not Applicable
2021-Montague-008	Delaware River Study	Flood	Engineer	<p><b>Problem:</b> Montague Township is located within the northwest corner of the State and sits along the Delaware River. Properties located along the river are susceptible to flooding and damages.</p> <p><b>Solution:</b> Conduct a study along the riverbanks of the Delaware River to identify areas that need to be elevated to reduce flooding impacts. Once identified, cost-effective actions will be carried out.</p>	1. No Progress 2. The Township focused on other priorities which prevented progress on this action.	1. Keep in the 2025 HMP 2. Not Applicable 3. Not Applicable



### 16.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Montague participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Montague would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 16-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 16-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 16-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X		X	X		X	X
Disease Outbreak		X		X		X	X			X
Drought		X		X		X	X			X
Earthquake	X	X		X		X	X			X
Flood	X	X		X	X	X	X	X	X	X
Geological Hazards	X	X		X		X	X			X
Hazardous Materials	X			X		X	X			X
Hurricane	X	X		X		X	X	X		X
Infestation				X			X			
Nor'easter	X	X		X		X	X	X		X
Severe Weather	X	X		X		X	X	X		X
Severe Winter Weather	X	X		X		X	X			X
Wildfire	X	X		X		X	X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 16-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-MontagueTwp-01	Upgrades to Culvert	1	1	1	1	1	0	1	1	1	1	1	1	0	0	11	High
2025-MontagueTwp-02	Township Bridge Vulnerabilities	1	1	1	1	1	0	1	1	1	0	1	1	1	0	11	High
2025-MontagueTwp-03	Dam Repair	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-MontagueTwp-04	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-MontagueTwp-05	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-MontagueTwp-06	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-MontagueTwp-07	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-MontagueTwp-08	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-MontagueTwp-09	Critical Facilities in the Floodplain	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-MontagueTwp-10	Critical Facility Emergency Generators	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-MontagueTwp-11	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-MontagueTwp-12	Impact Resistant Windows and Shutters for Municipal Hall	0	1	1	1	1	0	0	0	1	1	1	1	1	0	9	Medium
2025-MontagueTwp-13	Firewise Program Participation	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High



Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-MontagueTwp-14	Delaware River Study	1	1	1	1	1	0	1	1	1	0	1	1	1	0	11	High
2025-MontagueTwp-15	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-MontagueTwp-16	Steenykill Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

*Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14)*



## Action 2025-MontagueTwp-01. Upgrades to Culvert

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works, Highpoint Country Club																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Recent storm events have resulted in severe rainfall which have overwhelmed culverts and caused flooding. It is assumed that some culverts may be undersized and contribute to flooding. Culverts located at Highpoint Country Club (private community) are undersized and compromised during storm and flood events.																
<b>Description of the Solution:</b>	The Township Engineer will complete an engineering survey of culverts at Highpoint Country Club that are undersized and contribute to flooding to determine the proper size necessary to provide stormwater capacity. The Township Public Works will complete the necessary upsizing for those culverts noted to be undersized.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	BRIC, HMGP, Township Budget																
<b>Implementation Timeline:</b>	3 years																
<b>Goals Met:</b>	1, 2																
<b>Benefits:</b>	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.																
<b>Impact on Socially Vulnerable Populations:</b>	Areas that were previously vulnerable to frequency or severe flooding events will be less likely to be impacted by flooding events.																
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.																
<b>Impact on Critical Facilities/Lifelines:</b>	Transportation routes are more likely to remain open, which enables evacuation routes to remain intact. Access to health and medical facilities will be maintained, both for healthcare workers and the population who requires treatment for injuries and illness.																
<b>Impact on Capabilities:</b>	Identifying the culverts that are at greatest risk of damage or failure can allow for resource staging to take place where the need is greatest ahead of a flood event.																
<b>Climate Change Considerations:</b>	Climate change is likely to result in more frequent and severe rainfall events. This action upsizes culvert sizes to meet changing stormwater needs as the result of climate change.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Remove roadway</td><td>Roadway cannot be removed</td></tr><tr><td>Raingardens</td><td>Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.</td></tr></table>			Action	Evaluation	No Action	Current problem remains	Remove roadway	Roadway cannot be removed	Raingardens	Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.						
Action	Evaluation																
No Action	Current problem remains																
Remove roadway	Roadway cannot be removed																
Raingardens	Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.																





## Action 2025-MontagueTwp-02. Township Bridge Vulnerabilities

<b>Lead Agency:</b>	Engineering Department										
<b>Supporting Agencies:</b>	Township Administration										
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire										
<b>Description of the Problem:</b>	The status of the Township's bridges and causeway in relation to ability to withstand hazard events is unknown. Failure of bridges or causeways could result in loss to life and limitations to emergency access.										
<b>Description of the Solution:</b>	The Engineer will identify inadequate or vulnerable bridges and causeways within the Township and lift or retrofit the identified bridges and causeways.										
<b>Estimated Cost:</b>	Dependent on number of bridges identified and mitigation method sought.										
<b>Potential Funding Sources:</b>	HMGP, BRIC, Township Budget, Bridge Owners										
<b>Implementation Timeline:</b>	Within 5 years										
<b>Goals Met:</b>	2, 5										
<b>Benefits:</b>	This action ensures infrastructure will be protected from future hazard damages and that at least a single transportation route remains accessible to the community.										
<b>Impact on Socially Vulnerable Populations:</b>	This action will benefit socially vulnerable populations by ensuring routes are available for travel, should an evacuation occur or if emergency medical assistance is required.										
<b>Impact on Future Development:</b>	This action will ensure transportation routes are available to future developments during periods of heavy rainfall, which would otherwise cause roadway flooding.										
<b>Impact on Critical Facilities/Lifelines:</b>	This action ensures transportation routes remain open and accessible to the public for daily use and evacuation needs and provides a point of access for first responders into communities that may have faced damage from a hazard event on either side of the bridge.										
<b>Impact on Capabilities:</b>	Increases community resiliency to flooding events in vulnerable areas that would normally be vulnerable to prolonged isolation after high-water events.										
<b>Climate Change Considerations:</b>	Ensure the bridge structure is impervious to erosion at its base due to rising water levels.										
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)										
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th><th>Evaluation</th></tr> </thead> <tbody> <tr> <td>No action</td><td>Current problem remains</td></tr> <tr> <td>Build entirely new roads, bridges, and culverts throughout the county with adequate capacity</td><td>Project will most likely be too expensive</td></tr> <tr> <td>Install pumps at flood prone locations to pump water away from infrastructure and reduce the impact</td><td>Could have substantial upfront costs and would increase operations and maintenance cost</td></tr> </tbody> </table>			Action	Evaluation	No action	Current problem remains	Build entirely new roads, bridges, and culverts throughout the county with adequate capacity	Project will most likely be too expensive	Install pumps at flood prone locations to pump water away from infrastructure and reduce the impact	Could have substantial upfront costs and would increase operations and maintenance cost
Action	Evaluation										
No action	Current problem remains										
Build entirely new roads, bridges, and culverts throughout the county with adequate capacity	Project will most likely be too expensive										
Install pumps at flood prone locations to pump water away from infrastructure and reduce the impact	Could have substantial upfront costs and would increase operations and maintenance cost										



## Action 2025-MontagueTwp-03. Dam Repair

<b>Lead Agency:</b>	Engineer								
<b>Supporting Agencies:</b>	Dam Manager, NJDEP Bureau of Dam Safety, County Engineer								
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials</td><td><input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire</td></tr></table>			<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials	<input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire				
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<b>Description of the Problem:</b>	<p>The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:</p> <ul style="list-style-type: none"><li>• Holiday Pond Dam (poor)</li><li>• Steenykill Lake Dam (poor)</li><li>• Kulp Lake Dam (poor)</li><li>• Sawmill Pond Dam (poor)</li><li>• Fountain House Dam (poor)</li></ul> <p>Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.</p>								
<b>Description of the Solution:</b>	<p>The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.</p>								
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected								
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget								
<b>Implementation Timeline:</b>	Within 5 years								
<b>Goals Met:</b>	1, 2, 3								
<b>Benefits:</b>	<p>Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.</p>								
<b>Impact on Socially Vulnerable Populations:</b>	<p>The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.</p>								
<b>Impact on Future Development:</b>	<p>Future development downstream of dams will also be protected from dam failure.</p>								
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.</p>								
<b>Impact on Capabilities:</b>	Not applicable								
<b>Climate Change Considerations:</b>	<p>Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.</p>								
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low						
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>							



	No Action	Risk of dam failure remains or increases over time
	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access
	Remove all dams	Without proper analysis, dam removal may increase flooding risk



## Action 2025-MontagueTwp-04. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Building Department, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>			Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available						
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-MontagueTwp-05. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure         <input checked="" type="checkbox"/> Hurricane       </div> <div> <input checked="" type="checkbox"/> Disease Outbreak         <input checked="" type="checkbox"/> Infestation       </div> <div> <input checked="" type="checkbox"/> Drought         <input checked="" type="checkbox"/> Nor'easter       </div> <div> <input checked="" type="checkbox"/> Earthquake         <input checked="" type="checkbox"/> Severe Weather       </div> <div> <input checked="" type="checkbox"/> Flood         <input checked="" type="checkbox"/> Severe Winter Weather       </div> <div> <input checked="" type="checkbox"/> Geological Hazards         <input checked="" type="checkbox"/> Wildfire       </div> <div> <input checked="" type="checkbox"/> Hazardous Materials       </div>		
<b>Description of the Problem:</b>	The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Township by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Township.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Township.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Natural Systems Protection (NSP)		
	<input type="checkbox"/> Structure and Infrastructure Project (SIP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Natural Resource Protection (NR)		
	<input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Structural Flood Control Projects (SP)		
	<input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-MontagueTwp-06. Repetitive Loss Properties

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Sussex County		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has three repetitive loss properties, but other properties may be impacted by flooding as well.		
<b>Description of the Solution:</b>	The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA FMA, FMA SWIFT, Municipal Budget, County Budget, Property Owners		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	2, 3		
<b>Benefits:</b>	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem continues	
	Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas	
	Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event	





## Action 2025-MontagueTwp-07. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Land Use Board, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.		
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 2 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.		
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	
	Wait for information from the State on flood-damaged properties	May be a delay in notice	



## Action 2025-MontagueTwp-08. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Engineering, Construction Department, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-MontagueTwp-09. Critical Facilities in the Floodplain

<b>Lead Agency:</b>	Facility Managers	
<b>Supporting Agencies:</b>	Emergency Management, Floodplain Administrator, NJDEP	
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials	<input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire
<b>Description of the Problem:</b>	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Biccum Dam, Clove Lake Dam, and Hainesville WMA Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has a high-hazard potential dam, the Steenykill Lake Dam, within its jurisdiction. These structures have the potential to impact those living nearby.	
<b>Description of the Solution:</b>	Coordinate with the facility managers at Biccum Dam, Clove Lake Dam, and Hainesville WMA Dam in the Township to support the mitigation of vulnerable structures via retrofit (e.g., elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.  The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM.	
<b>Estimated Cost:</b>	Medium	
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Township Budget, Facilities	
<b>Implementation Timeline:</b>	5 years	
<b>Goals Met:</b>	1, 2, 3, 5, 7	
<b>Benefits:</b>	This action will remove or reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders. This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.	
<b>Impact on Socially Vulnerable Populations:</b>	Retrofitting or relocating the identified structures will benefit socially vulnerable populations, as individuals within these populations rely on resources from various government facilities, transportation facilities, and medical and senior care facilities. The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.	
<b>Impact on Future Development:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area. Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.	
<b>Impact on Critical Facilities/Lifelines:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area. Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.	
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities. This action will improve planning and response capabilities through the understanding of responsibilities and procedures.	
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.	



Mitigation Category	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem remains
	Floodproof existing structures		May not necessarily reduce risk
	Construct floodwalls to stop flood issues		Will most likely interrupt natural floodplain function



## Action 2025-MontagueTwp-10. Critical Facility Emergency Generators

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works, Emergency Management, Township Administration, School Administration, Fire Department		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Montague Township Elementary School, located at 475 Route 206, has been identified as a sheltering location but lacks a backup power source. The new fire station/community center/shelter, located at 274 Clover Road, is a lifeline for the Township and provides essential services to the municipality and its residents. It currently does not have a backup generator to provide continuity of operations during a power outage and serve as a shelter to the community.		
<b>Description of the Solution:</b>	The Engineer will research what size generator is needed to power the Montague Township Elementary School and the Fire Station. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Montague Township Elementary School and Fire Station.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5, 6, 7		
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	



## Action 2025-MontagueTwp-11. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Building Department, Township Administration, NFIP State Coordinator, FEMA Regional Office		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	<p>The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meeting New Jersey's minimum requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.</p>		
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.</p>		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>		
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>		
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>		
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>		
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>		
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem exists





	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage



## Action 2025-MontagueTwp-12. Impact Resistant Windows and Shutters for Municipal Hall

<b>Lead Agency:</b>	Public Works																
<b>Supporting Agencies:</b>	Emergency Management																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
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<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	It is unknown if the windows of the municipal hall, located at 277 Clover Road, are impact resistant. Impact resistant windows provide a barrier during severe weather and severe winter weather events. High winds associated with these hazards can blow debris into windows, potentially endangering those inside the structure, as well as damaging the structure itself, if the windows are not impact resistant.																
<b>Description of the Solution:</b>	The Township will conduct a study to determine whether the windows of the Township hall are impact resistant. If not, the Township will retrofit municipal building with impact resistant windows and shutters.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Township Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	2, 6																
<b>Benefits:</b>	This action will protect the Municipal Hall, a critical facility and community lifelines, from wind damage associated with severe weather, severe winter weather, hurricanes, nor'easters, and any debris which the winds may elevate.																
<b>Impact on Socially Vulnerable Populations:</b>	The Municipal Hall may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect the Municipal Hall from potential wind damages caused by debris.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as hurricanes, nor'easters, winter storms, and winds. This action accounts for a likely increase in flying debris which may damage windows.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Build new municipal hall</td><td>Costly, unnecessary</td></tr><tr><td>Replace all windows without conducting the study</td><td>May be unnecessary, costly</td></tr></table>	Action	Evaluation	No action	Current problem continues	Build new municipal hall	Costly, unnecessary	Replace all windows without conducting the study	May be unnecessary, costly								
Action	Evaluation																
No action	Current problem continues																
Build new municipal hall	Costly, unnecessary																
Replace all windows without conducting the study	May be unnecessary, costly																



## Action 2025-MontagueTwp-13.Firewise Program Participation

<b>Lead Agency:</b>	Fire Department																
<b>Supporting Agencies:</b>	Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Montague Township is located within the northwest corner of the State and sits along the Delaware River. Several state and national parks are located within the Township, providing acres of forested land. This creates an increased risk of wildfires to residents who border the forested areas.																
<b>Description of the Solution:</b>	The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up outreach meetings.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal Budget																
<b>Implementation Timeline:</b>	3 years																
<b>Goals Met:</b>	1, 2, 3, 4, 5																
<b>Benefits:</b>	The national Firewise USA recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level.																
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township may be located within very high and high fuel risk areas for wildfires. Participation in the Firewise Program will assist in the Township's efforts to educate populations on how to increase the ignition resistance of their home and property.																
<b>Impact on Future Development:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made. This assessment may identify areas which the Township would like to restrict future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made, which could include relocating various critical facilities or lifelines.																
<b>Impact on Capabilities:</b>	This action will increase wildfire risk reduction and response capabilities for the Township.																
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>The Township does not participate in the Firewise Program</td></tr><tr><td>Complete half of the program requirements</td><td>The Township would not be eligible to participate in the Firewise Program</td></tr></table>			Action	Evaluation	No Action	The Township does not participate in the Firewise Program	Complete half of the program requirements	The Township would not be eligible to participate in the Firewise Program								
Action	Evaluation																
No Action	The Township does not participate in the Firewise Program																
Complete half of the program requirements	The Township would not be eligible to participate in the Firewise Program																



	Participate in the program, but do not utilize resources	The Township would miss opportunities to strengthen communication and safety skills
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## Action 2025-MontagueTwp-14. Delaware River Study

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Floodplain Administrator																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Montague Township is located within the northwest corner of the State and sits along the Delaware River. Properties located along the Delaware River are susceptible to flooding and damages.																
<b>Description of the Solution:</b>	Conduct a study along the riverbanks of the Delaware River to identify areas that need to be elevated or acquired to reduce flooding impacts. Once identified, cost-effective actions will be carried out.																
<b>Estimated Cost:</b>	Dependent on the number of identified structures needing to be elevated or acquired.																
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, FMA, Township Budget																
<b>Implementation Timeline:</b>	5 years																
<b>Goals Met:</b>	1, 2																
<b>Benefits:</b>	This action will produce results to identify which parcels of land are susceptible to flooding from the Delaware River; furthermore, the action will reduce the flooding impacts felt by the Township from the Delaware River once cost-effective actions are identified and implemented.																
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding from the Delaware River. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.																
<b>Impact on Future Development:</b>	This action will identify parcels of land which may be susceptible to flooding from the Delaware River. Should the Township choose to, these parcels could be selected for open space preservation and zoned to prevent any future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will assist in the reduction of roadway flooding from the Delaware River, permitting first responders to traverse the roadways safely.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input checked="" type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Raise banks of creek to increase storage capacity</td><td>Cost prohibitive</td></tr><tr><td>Construct floodwall along creek</td><td>Cost prohibitive</td></tr></table>	Action	Evaluation	No action	Current problem remains	Raise banks of creek to increase storage capacity	Cost prohibitive	Construct floodwall along creek	Cost prohibitive								
Action	Evaluation																
No action	Current problem remains																
Raise banks of creek to increase storage capacity	Cost prohibitive																
Construct floodwall along creek	Cost prohibitive																



## Action 2025-MontagueTwp-15. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input checked="" type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP) </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP) </div> </div>		
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI) </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES) </div> </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>





	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-MontagueTwp-16. Steenykill Lake Dam Rehab

<b>Lead Agency:</b>	New Jersey Division of Parks and Forestry		
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input type="checkbox"/> Nor'easter  <input type="checkbox"/> Severe Weather  <input type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	Steenykill Lake Dam is a Class I High Hazard Dam that is located on Steeny Kill Lake. The dam is owned by the New Jersey Division of Parks and Forestry. Failure of the dam could result in inundation of forested areas, recreational areas, and roadways including State Route 23. The dam was last inspected in 2022 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.		
<b>Description of the Solution:</b>	The Municipal Engineer will work with the New Jersey Division of Parks and Forestry to complete an engineering study of Steenykill Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the New Jersey Division of Parks and Forestry will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 8		
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.		
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.		
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem continues
	Decommission Dam		High cost, flood risk for nearby infrastructure increased, loss of Steeny Kill Lake as an environmental and recreational resource.



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## 17. TOWN OF NEWTON

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Town of Newton with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Newton, describes who participated in the planning process, assesses Newton's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 17.1 HAZARD MITIGATION PLANNING TEAM

The Town of Newton identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments. The Deputy Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 17-1 summarizes Town officials who participated in the development of the annex and in what capacity. Additional documentation of the Town's planning activities through Planning Partnership meetings is included in Volume I.

Table 17-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Dan Finkle / EMC Address: 39 Trinity St., Newton, NJ 07860 Phone Number: (973) 383-3521 ext. 266 Email: dfinkle@newtonoem.org	Name/Title: Jason Miller / Deputy EMC Address: 39 Trinity St., Newton, NJ 07860 Phone Number: (973) 383-3521 ext. 362 Email: jmiller@newtonoem.org
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Harold E. Pellow, Harold E. Pellow & Associates, Inc. Address: 17 Plains Road, Augusta, NJ 07822 Phone Number: (973) 948-6463 x213 Email: hpellow@hpellow.com	
<b>Additional Contributors</b>	
Name/Title: Dan Finkle, EMC Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved draft annex.	
Name/Title: Jason Miller, Deputy EMC Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Joe Butto, Construction Official Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Cory Stoner, Town Engineer Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Harold E. Pellow, Floodplain Administrator Method of Participation: Reviewed and approved draft annex.	



## 17.2 COMMUNITY PROFILE

The Town of Newton is located centrally in Sussex County and is the county seat of the County. It is bordered to the north by Hampton Township, to the south and east by Andover Township and to the west by Fredon Township. The Town covers an area of approximately 3.2 square miles. The Paulins Kill Tributary flows through the Town and the Pequest River is found in the southern end of the Town. According to the U.S. Census, the 2020 population for Newton was 8,374, a 4.7-percent increase from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 4-percent of the population is 5 years of age or younger, 7-percent is 65 years of age or older, 10.6-percent is non-English speaking, 10-percent is below the poverty threshold, and 7.6-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Town of Newton, 44-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 17.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Newton performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Newton to identify opportunities for integrating mitigation concepts into ongoing Town procedures.

### 17.3.1 Planning and Regulatory Capability and Integration

Table 17-2 summarizes the planning and regulatory tools that are available to Newton.



Table 17-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.); Chapter 85 – Uniform Construction Codes	State, Local	Construction Official
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The State Uniform Construction Code, building subcode, is hereby adopted pursuant to N.J.S.A. 52:27D-119 and N.J.A.C. 5:23. The code is hereby adopted and incorporated as fully as if set forth at length herein. The provisions shall be controlling in the construction, alteration, renovation, rehabilitation, maintenance, occupancy, and use of all buildings and structures therein contained within the corporate limits of the Town.</i></p>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 320 – Zoning (2011)	Local	Code Enforcement
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.</i></p>				
<b>Subdivision Code</b>	Yes	Chapter 240 – Land Subdivision and Site Plan Review (2011)	Local	Planning Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.</i></p>				
<b>Site Plan Code</b>	Yes	Chapter 240 – Land Subdivision and Site Plan Review (2011)	Local	Planning Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p>Approval of a site plan by the Planning Board is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.</p>				
<b>Stormwater Management Code</b>	Yes	Chapter 258 – Stormwater Management Ordinance (2021)	Local	Planning Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.</i></p>				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.

The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.

The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.

For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.

The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?

Not all provisions of this law have become effective at the time of the writing of this plan.

<b>Growth Management</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Environmental Protection Ordinance(s)</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 120 – Flood Damage Prevention (2011)	Local	Construction Official
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How has or will this be integrated with the HMP and how does this reduce risk?

*It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:*

- A. Protect human life and health;*
- B. Minimize expenditure of public money for costly flood control projects;*
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;*
- D. Minimize prolonged business interruptions;*
- E. Minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;*
- F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;*
- G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and*
- H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*

<b>Wellhead Protection</b>	Yes	Section 240-10 – Wellhead Protection	Local	Planning Board and Board of Health
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How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of this section is to protect the public health, safety and welfare through the protection of the groundwater resources underlying the municipality to ensure a supply of safe and healthful drinking water for the present and future generations of local residents, employees and the general public in this municipality, as well as users of these water supplies outside this municipality. Areas of land surrounding each public community well and non-transient noncommunity well, known as wellhead protection areas, from which contaminants may move through the ground to be withdrawn in water taken from the well, have been delineated. Through regulation of land use, physical facilities, placement of toxic and hazardous materials, and other related activities within these areas, the potential for groundwater contamination can be reduced and any such contamination can be more readily found and remediated before reaching a public well.*

<b>Emergency Management Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Other: Municipal Separate Storm Sewer System (MS4)	Yes	Chapter 228, Article 7 – Sewer and Water; Municipal Separate Storm Sewer	Local	Utility Advisory Board, Town Council

How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of this article is to prohibit the spilling, dumping, or disposal of materials other than stormwater to the municipal separate stormwater sewer system (MS4) operated by the Town of Newton, so as to protect the health, safety and welfare, and to prescribe penalties for the failure to comply.*

Other: [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Chapter 262 – Stream Obstruction, Chapter 297 – Tree Bank, Chapter 299 – Trees, and Section 240-11 – Step Slopes	Local	Planning Board, Town Manager, Public Works, Code Enforcement
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How has or will this be integrated with the HMP and how does this reduce risk?

- *Chapter 262: Stream Obstruction – restricts the movement of soil, stones, brush, or other obstruction which will prevent free passage of water in any stream or channel which has been constructed or cleared for the purpose of draining land in the Town.*
- *Chapter 297: Tree Bank – provides a fund for the planting of trees within the Town of Newton. More specifically, when an applicant for a major site plan cannot or does not wish to fulfill the tree replacement requirements of § 240-7B(6), then the applicant must contribute to the Tree Bank.*
- *Chapter 299: Trees – restricts certain acts which may affect the trees, shrubbery or ornamental material planted or growing naturally within the highways or public places under the jurisdiction of the Town, except with a written permit first obtained from the Director of Public Works*
- *Section 240-11: Steep Slopes – The purpose of this section is to regulate the intensity of use in areas of steeply sloping terrain in order to limit soil loss, erosion, excessive stormwater runoff, the degradation of surface water and to maintain the natural topography and drainage patterns of land.*

Other	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

#### PLANNING DOCUMENTS

General/Comprehensive Plan	Yes	Town of Newton Master Plan, August 2008, Re-examined July 2019	Local	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*The broader general development goal for Newton as a Regional Center is to enhance and strengthen Newton's position as a Regional Center in Sussex County in such a way that it will fulfill the social, commercial, governmental, medical, and service needs of a growing County within the constraints of the Town's existing resources.*

Capital Improvement Plan	Yes	Municipal Budget	Local	Town Manager
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How has or will this be integrated with the HMP and how does this reduce risk?

*The municipal budget, which acts as the Town's Capital Improvement Plan, includes various potential projects which may assist in hazard mitigation efforts.*

Disaster Debris Management Plan	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

Floodplain Management or Watershed Plan	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Stormwater Management Plan</b>	Yes	Municipal Stormwater Plan, September 1, 2005	Local	Public Works and Engineering

How has or will this be integrated with the HMP and how does this reduce risk?

*The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. The plan also addresses the review and update of existing ordinances and other planning documents to allow for project designs that include low impact development techniques. The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought.*

<b>Stormwater Pollution Prevention Plan</b>	Yes	Stormwater Pollution Prevention Plan, June 24, 2019	Local	Public Works and Engineering
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Stormwater Pollution Prevention Plan is used to identify all potential pollution sources that could come into contact with stormwater leaving a site.*

<b>Open Space Plan</b>	Yes	Town of Newton Master Plan, NRI, Conservation Element, Open Space and Recreation, June 2023	Local	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Town of Newton's 2023 Open Space and Recreation Plan (OSRP) has been prepared in accordance with the guidelines and requirements as set forth by the New Jersey Department of Environmental Protection's (NJDEP's) Green Acres Program and the New Jersey Municipal Land Use Law (MLUL). The purpose of this OSRP is to provide updates on open space, recreation, and other land development issues and offers current goals and policies as well as a new action plan.*

<b>Urban Water Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Habitat Conservation Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Economic Development Plan</b>	Yes	Town of Newton Master Plan, Strategic Vision Element, May 2013	Local	Planning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Strategic Vision builds on the vision of the Urban Design Plan, which described the vision for Newton as "a holistic vision of a place where the people of Newton want to live, work and feel connected to; a pedestrian friendly place, which can be translated into feasible development opportunities to provide the opportunity for urban living for a variety of households, with additional services and amenities for the entire community." This is the broad vision for the Town and remains a solid foundation for Town policies and decision-making.*

*The narrower Strategic Vision focuses on the heart of the Town as the key component to building a vibrant community. The Strategic Vision for Newton is that it is "Sussex County's downtown: a charming, unique place to live and visit that is compact, attractive and offers arts, entertainment, dining, shopping and activities for all ages." This more focused vision provides the basis for economic development and redevelopment within the downtown as the focal point for revitalizing the entire Town.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	Yes	Community Forestry Management Plan 2018-2022	Local	Advisory Shade Tree Commission
How has or will this be integrated with the HMP and how does this reduce risk?				
<i>Newton has developed this plan in accordance with statewide efforts to preserve and promote sustainable community forest resources, and the goals and objectives of its Municipal Master Plan. This second five-year plan builds upon the successes realized as a result of implementing the Town's 2010-2014 plan, the goals and objectives which were continued through 2017. During the management period, Newton will continue to implement and enhance programs for managing public street trees and continue to increase focus on trees in Town parks and on Town properties. In addition, it is expected that elements of this plan will continue to help stimulate the public's appreciation for trees and contribute to their proper planting, protection, and care.</i>				
<i>This plan was written to improve the quality of life in the Town of Newton by maximizing the environmental, social, and economic benefits of trees to the community while minimizing the associated costs and liabilities.</i>				
<b>Transportation Plan</b>	Yes	Town of Newton Master Plan, Circulation Plan Element, 2009	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk?				
<i>The Town of Newton's Circulation Plan Element provides an inventory of existing roads in the Town and examines jurisdiction, function, and high accident locations. The Plan then provides recommendations for the creation of a more in-depth examination of circulation in the Town, including level of service surveys of existing roadways and examining current problem traffic areas as well as potential future problem areas in light of the proposed development and redevelopment outlined in this Plan. This proposed Circulation Plan would result in a capital improvement program to provide for needed traffic improvements within the Town, which could take place through the redevelopment process. Finally, recommendations for alternative transportation, including bike paths and transit services, are provided.</i>				
<b>Agriculture Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Action/Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Town of Newton Emergency Operations Plan, 2023	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Operations Plan aims to assess the Town's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Post-Disaster Recovery Plan, a portion of the Emergency Operations Plan, aims to assess the Town's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i>				
<b>Public Health Plan</b>	Yes	Town of Newton Emergency Operations Plan, 2023	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Operations Plan aims to assess the Town's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery. This plan is located within the Public Health Annex of the EOP.</i>				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 17.3.2 Development and Permitting Capability

Table 17-3 summarizes the capabilities of Newton to oversee and track development.





Table 17-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	The Construction Official grants these permits per Section 120-12 of the Municipal Code.
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	Yes	In the Town's master plan.
Describe the level of buildout in your jurisdiction.	N/A	The Town of Newton is nearly fully built out. According to the Town's zoning map, the north western portion of the Town is zoned for future residential development. Within other zones, future development may occur as parcels become available.

### 17.3.3 Administrative and Technical Capability

Table 17-4 summarizes potential staff and personnel resources available to Newton and their current responsibilities that contribute to hazard mitigation.

Table 17-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Planning Board has nine members and four alternate members. Three of the Board members who participate on a regular basis are municipal officials, Mayor, Council representative and Town Manager. The Planning Board is responsible for evaluating and rendering decisions on applications for development such as site plans, subdivisions, and variances. The Planning Board has reviewed a wide array of applications ranging from high-tech industrial development to the establishment of retail, commercial, and residential properties. With the elimination of the Zoning Board of Adjustment at the end of 2010, the Planning Board is now also responsible for use variances.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Environmental Board/Commission	Yes	<p>The Advisory Shade Tree Commission has five members that are each appointed to a five-year term by the Town Council. In 1998, the Town Council created the Advisory Shade Tree Commission, which is responsible for recommending ordinances that pertain to the regulation and control of shade and ornamental trees. The Commission has also reviewed landscaping plans for various site plan projects proposed by the Town of Newton.</p>
Open Space Board/Committee	Yes	<p>The Advisory Recreation Commission consists of seven members who are appointed by the Town Council. The main function of the Commission is to assist the Town Manager in identifying recreational interests and needs, and determining the impact that those interests and needs may have on the available recreational facilities.</p> <p>The Advisory Shade Tree Commission has five members that are each appointed to a five-year term by the Town Council. In 1998, the Town Council created the Advisory Shade Tree Commission, which is responsible for recommending ordinances that pertain to the regulation and control of shade and ornamental trees. The Commission has also reviewed landscaping plans for various site plan projects proposed by the Town of Newton.</p>
Economic Development Commission/Committee	Yes	<p>The Economic Development Advisory Commission has seven members that are each appointed to a three-year term by the Town Council.</p> <p>A representative of the Governing Body is appointed annually to the Commission, and the Deputy Town Manager serves as secretary.</p> <p>In 2002, the Town Council created the Economic Development Advisory Commission to be a link between the Governing Body and the business and residential community. Its responsibilities are to research, study, evaluate and make recommendations to the Mayor and Council as to the economic vitality and development in the Town on an ongoing basis.</p>
Public Works/Highway Department	Yes	<p>The Public Works Department is responsible for all the roads that are owned by the Town of Newton. During the year, the Department conducts routine maintenance on the roads, storm drains, and municipally owned buildings.</p> <p>From spring to fall, streets throughout Town are swept. In the winter, the Department is always busy with removal of snow and ice from the roadways. The Department is also responsible for the curbside collection of recyclables and operating the Recycling Center during operational hours.</p>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Construction/Building/Code Enforcement Department	Yes	<p>The Town of Newton has contracted with Hardyston Township for Construction Department services.</p> <p>The Code Enforcement Department processes citizens request for code enforcement information to fulfill the Town's legal obligations under New Jersey's Open Public Records Act. Code Enforcement will work with property owners in their effort to correct any violation(s).</p>
Emergency Management/Public Safety Department	Yes	<p>Emergency Management is a vital function involving all departmental levels of local government. Each department takes part in efforts to prepare for, respond to, mitigate, and recover from all types of dangerous or hazardous situations. During times when no emergencies exist, some of the duties handled by the Emergency Management Coordinator (EMC) include the identification and analysis of the effects of hazards which might pose a threat to the Town of Newton and to attend training courses to keep skills and knowledge current. Emergency Management works closely with the Newton Police Department, Newton Fire Department, Newton First Aid Squad, Newton Department of Public Works, County and State Offices of Emergency Management, and County and State Offices of Homeland Security.</p>
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	<p>The Public Works Department is responsible for all the roads that are owned by the Town of Newton. During the year, the Department conducts routine maintenance on the roads, storm drains, and municipally owned buildings.</p> <p>From spring to fall, streets throughout Town are swept. In the winter, the Department is always busy with removal of snow and ice from the roadways.</p> <p>The Town plans to implement municipal programs to prevent trees from threatening lives and impacting power availability/interruption.</p>
Mutual aid agreements	Yes	<p>Agreements are in place with neighboring communities but require strengthening.</p>
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	<p>There are no job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk</p>
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Professional Engineer - consultant
Engineers or professionals trained in building or infrastructure construction practices	Yes	Professional Engineer - consultant
Planners or engineers with an understanding of natural hazards	Yes	Professional Engineer and Planners - consultant



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	Yes	Building/Construction Department
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Professional Engineer - consultant
Staff that work with socially vulnerable populations or underserved communities	Yes	The Town of Newton offers various services to seniors.
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Professional Engineer - consultant
Emergency manager	Yes	OEM Coordinator
Grant writers	Yes	Deputy Town Manager
<i>Consider the following:</i> Are data and maps from the HMP used to support documentation in grant applications?		
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 17.3.4 Fiscal Capability

Table 17-5 summarizes financial resources available to Newton.

Table 17-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Yes, Clean Water Act 319 Grants



### 17.3.5 Education and Outreach Capability

Table 17-6 summarizes the education and outreach resources available to Newton.

Table 17-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Chief of Police and Administrator
Personnel skilled or trained in website development	Yes	Contractor builds and updates the website
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	Yes	Social media is used for emergency management including Fire department, police department, First Aid Squad and Department of Public Works.
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Nixle
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	The Town of Newton offers various services to seniors.
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Municipal website, mailings, social media, Nixle, staff on foot (police and fire).

### 17.3.6 Community Classifications

Table 17-7 summarizes classifications for community programs available to Newton.

Table 17-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	None	April 13, 2009
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable



### 17.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 17-8 summarizes the adaptive capacity for each identified hazard of concern and the Town’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 17-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

## 17.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 17-1 is responsible for maintaining this information.

### 17.4.1 NFIP Statistics

Table 17-9 summarizes the NFIP policy and claim statistics for Newton.

Table 17-9. Newton NFIP Summary of Policy and Claim Statistics

# Policies	10
# Claims (Losses)	8
Total Loss Payments	\$295,504.96
# Repetitive Loss Properties (NFIP definition)	0





# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

*Source: FEMA Region II 2024*

## 17.4.2 Flood Vulnerability Summary

Table 17-10 provides a summary of the NFIP program in Newton.

Table 17-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Town occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Construction
Are any certified floodplain managers on staff in your jurisdiction?	No



NFIP Topic	Comments
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, various online resources from FEMA and other Federal agencies. Access to regional and State resources as well.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would consider attending continuing education and/or certification training on floodplain management.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Staff and funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	July 31, 2006
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 120: Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	August 22, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The Town's floodplain management program meets the minimum requirements.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Planning Board considers efforts to reduce flood risk when reviewing variances such as height restrictions. The Town has subdivision and site plan ordinances.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 17.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 17-11 through Table 17-13.

Table 17-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0



	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 17-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There has not been any recent major development or infrastructure in the Town between 2019 to present.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 17-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There are no known or anticipated major development or infrastructure in the Town in the next five years.					

## 17.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Newton's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 17.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Town are shown in Figure 17-1 through Figure 17-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified

clearly using mapping techniques and technologies and for which Newton has significant exposure. The maps show the location of potential new development, where available.

Figure 17-1. Newton Flood and Sinkhole Hazard Area Extent and Location Map

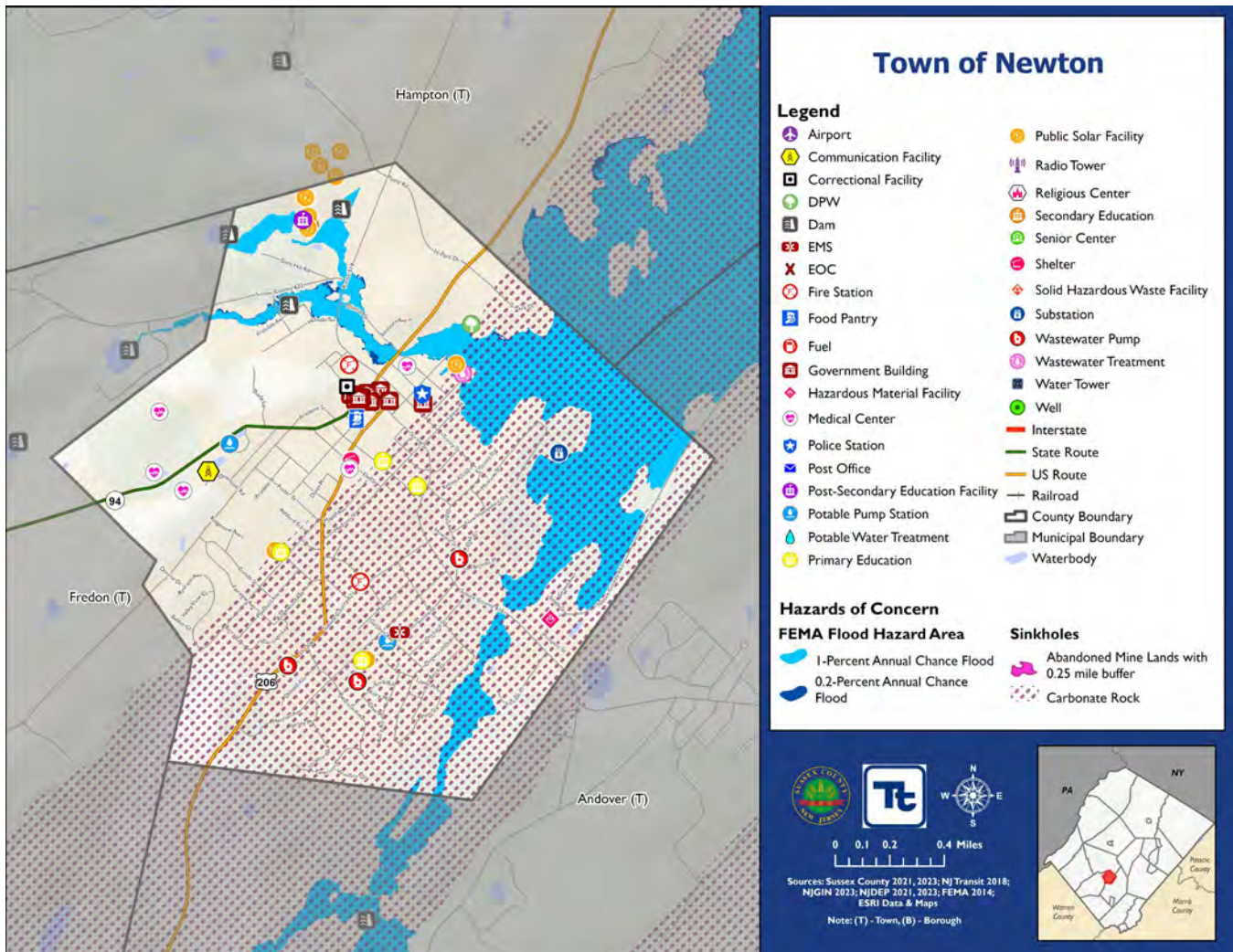




Figure 17-2. Newton Hazardous Materials and Wildfire Hazard Area Extent and Location Map

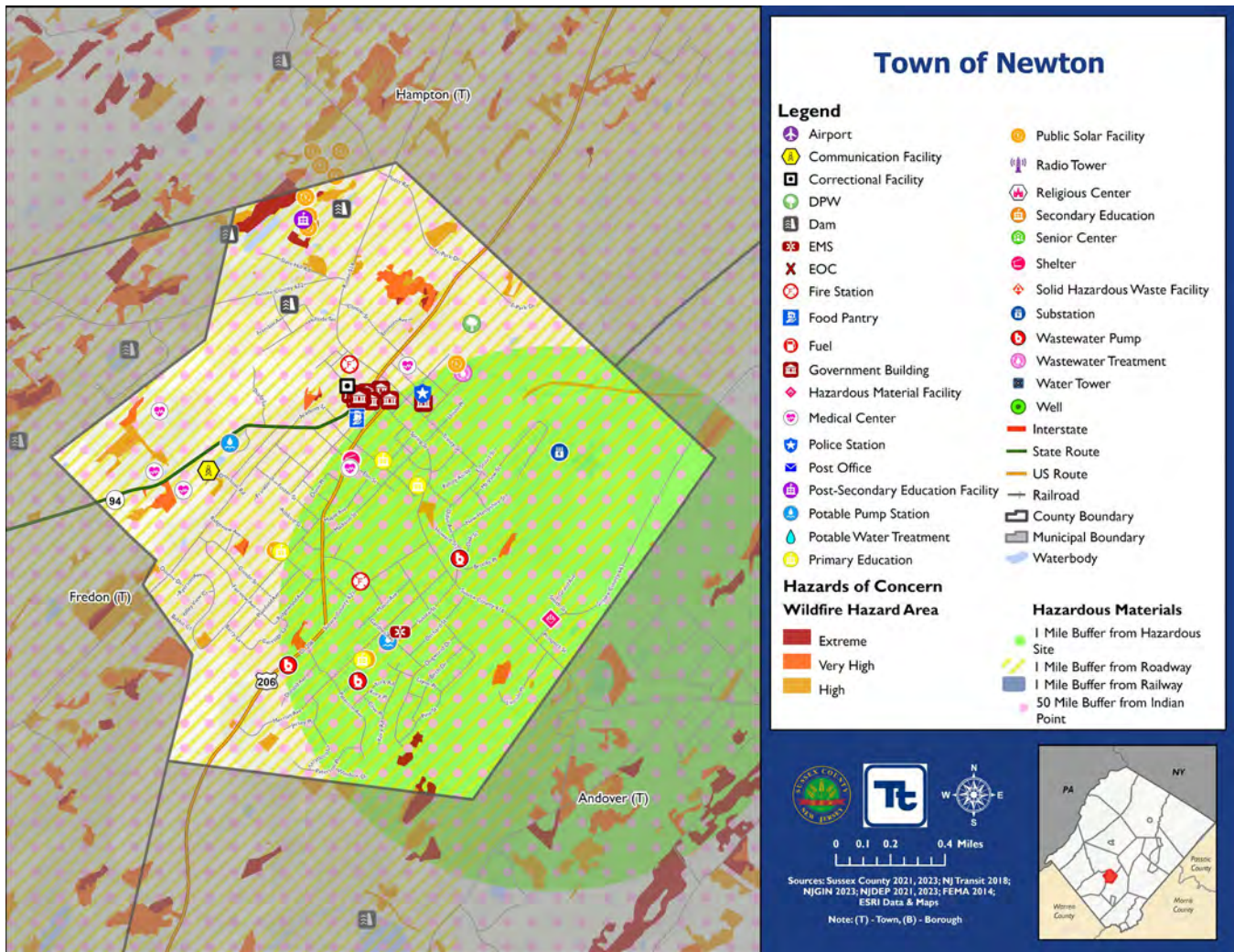
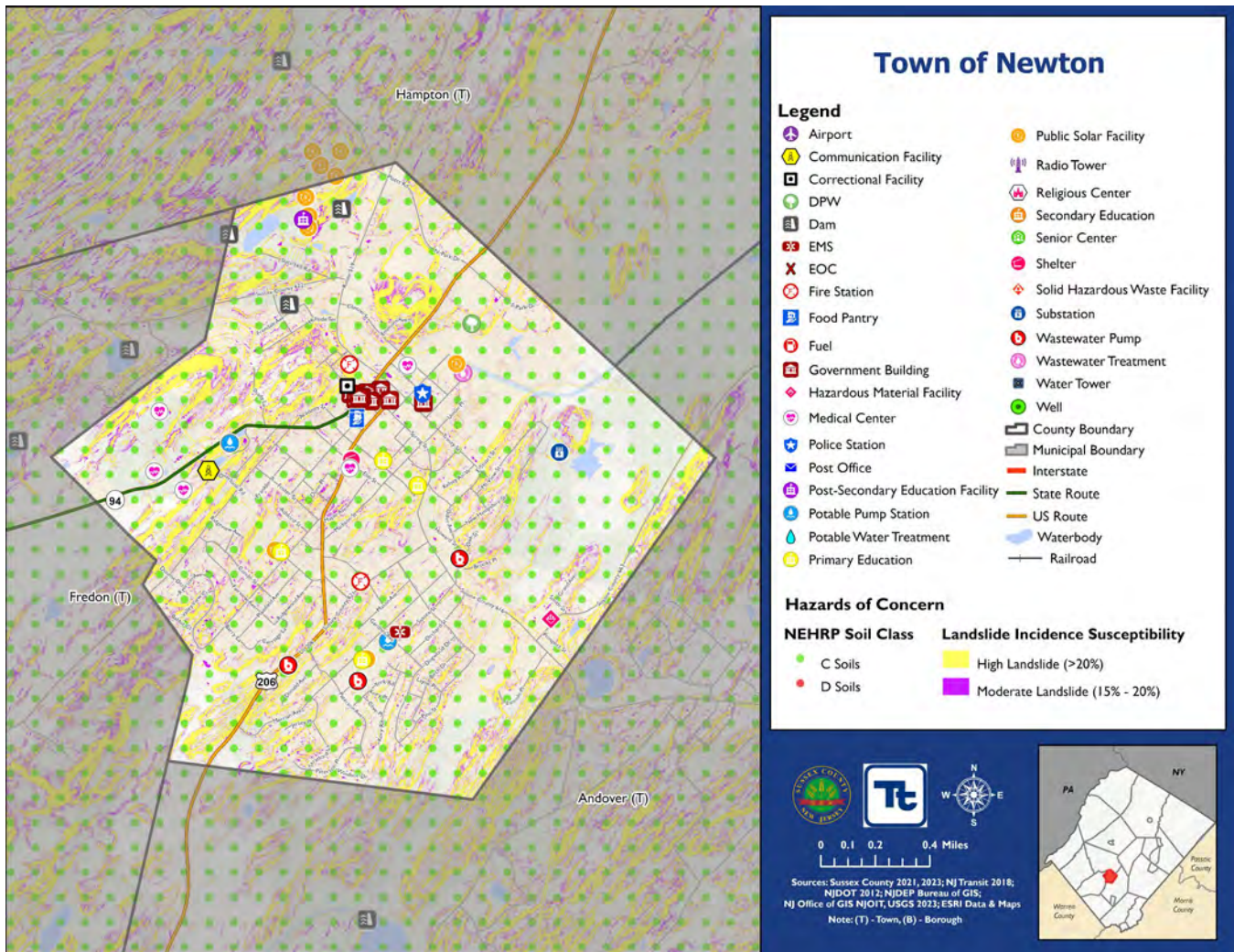


Figure 17-3. Newton Landslide and NEHRP Soils Hazard Area Extent and Location Map







## 17.6.2 Hazard Event History

The history of natural and non-natural hazard events in Newton is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 17-14 provides details on loss and damage in Newton during hazard events since the last hazard mitigation plan update.

Table 17-14. Hazard Event History in Newton

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Newton
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Town implemented masking and social distancing mandates. Non-emergent personnel were permitted to work from home.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Downed trees and power lines. Public Works officials assisted in the clean-up on Town maintained roadways and properties.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Heavy snowfall and high snow accumulations impacted the Town. No damages or losses occurred to Town property. Public Works officials assisted in the clean-up on Town maintained roadways and properties.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Flash flooding resulted in road closures. Public Works officials assisted in the clean-up on Town maintained roadways and properties.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 17.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Newton.



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Newton reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Town indicated the hazard rankings were accurate.

Table 17-15 shows Newton's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 17-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 17-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 17-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Don Bosco Dam	Dam	Yes	Yes	2025-NewtonT-04, 2025-NewtonT-05	-



Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Houghton Dam	Dam	Yes	Yes	2025-NewtonT-04, 2025-NewtonT-05	-
NJSRRE1532193093	Public Solar Facility	No	Yes	2025-NewtonT-04	-

Source: NJGIN 2023; Sussex County 2021, 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Newton:

- Paulins Kill Site 4 Dam

### 17.6.4 Identified Issues

After review of Newton's hazard event history, hazard rankings, hazard location, and current capabilities, Newton identified the following vulnerabilities within the community:

- The Town lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Town does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Town in identifying and prioritizing properties to mitigate.
- The Town does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Town has three critical facilities in the floodplain – the Don Bosco Dam, Houghton Dam, and a Public Solar Facility.
- The Don Bosco Dam and Houghton Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Town also has a high-hazard potential dam, the Paulins Kill Site 4 Dam, within its jurisdiction. These structures have the potential to impact those living nearby.
- The Merriam Avenue School stormwater pump facility is undersized. This results in increased risk of flooding in the surrounding area that is serviced by the pump facility. Should the pump facility not be able to keep up with rainfall rates, flooding conditions could ensue.
- The stormwater management system requires upgrade at the Public Works Garage located on Moran Street. An inefficient stormwater management system can lead to an increased risk of flooding. The Garage also requires improved access, which would permit the operations at the facility to continue during an emergency event.
- The Emergency Operations Plan lacks a dam failure component and does not incorporate hazard mitigation principles. There are dams located in the Town which can cause impacts to their surrounding areas.



Understanding and acknowledging those vulnerable to the hazard, identifying primary and secondary contacts for each dam, and properly planning and storing any emergency action plans or procedures is pertinent to the safety and resilience of the Town.

- The roof of the Newton Municipal Building located on Trinity Street is not designed to withstand high wind. High wind associated with severe winter weather, severe weather, hurricanes, and nor'easters have the potential to damage the roof, which may cause injury to the individuals inside of the building.
- Two buildings at the Sussex County Community College are not designed with windows to withstand wind damages. High winds associated with these hazards can blow debris into windows, potentially endangering those inside the structure, as well as damaging the structure itself, if the windows are not impact resistant.
- Two buildings at the Sussex County Community College are not designed with modern snow load standards. This becomes an issue during severe winter weather and high winds associated with severe weather, hurricane, and nor'easter events, as individuals inside the buildings may become impacted should damage to the roof be significant.
- The Town struggles to communicate the availability of warming and cooling centers. Warming and cooling centers are integral facilities, as they provide relief to vulnerable populations in the Town, who would otherwise be exposed to the hazardous associated with extreme temperatures.
- The Newton First Aid Squad EMS Station, three pumping stations, and a communications tower, all critical facilities, require automatic standby generators to ensure continuity of operations. These facilities provide the community with access to emergency response, ensure rainfall is removed in a timely fashion to prevent flooding, and lines of communication – both amongst themselves and to emergency service providers should it be needed.
- The Town lacks procedures to capture loss and damage data from hazard events. This limits the knowledge of hazard events and lessens the ability to apply for grant funding support. Understanding how a historical hazardous event impacted the community will provide a better understanding of how similar hazard events may impact the Town today.
- The Town lacks procedures to complete post disaster damage assessments. Damage assessment tools have been created and provided by NJOEM; however, the Town is not trained on these capabilities produced by NJOEM. Being able to perform damage assessments can increase the likelihood the Town will receive financial assistance following a hazard event, should a declaration be declared, and the damage threshold be met.
- Falling trees cause damage property, reduce continuity of operations, and can cause injuries or death. Utility companies are responsible for the maintenance of those on or near utility lines. Private homeowners must ensure trees on private property are not threatening power availability/interruption.
- The Town's flood damage prevention ordinance lacks discussion of the state's freeboard requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- Paulins Kill Site 4 Dam is a Class I High Hazard Dam that is located along Little Hortons Pond. The dam is owned by the Town. Failure of the dam could result in inundation of densely populated areas, forested areas, critical facilities and community lifelines, and local roadways including Slate Hill Road and Swartswood Road. Although the dam was last inspected in 2022 and found to be in satisfactory condition,



the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 17.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 17.7.1 Past Mitigation Action Status

Table 17-17 indicates progress on the Town's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 17.7.2 Additional Mitigation Efforts

Newton did not identify any additional mitigation efforts completed since the last HMP.



Table 17-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Newton-001	Merriam Avenue School Pump Facility	Flood, Severe Weather	Town DPW and Engineer	<b>Problem:</b> The Merriam Avenue School stormwater pump facility is undersized. This results in increased risk of flooding in the surrounding area that is serviced by the pump facility.  <b>Solution:</b> The Town will upgrade the capacity of Merriam Avenue School stormwater pump facility. The Engineer will design the improvements and the DPW will carry out the upgrades.	1. No Progress 2. Funding was unavailable to begin work of this action.	1. Include 2. Keep as is 3. Not applicable
2021-Newton-002	DPW Garage Stormwater and Access Upgrades	Flood, Severe Weather	Town DPW and Engineer	<b>Problem:</b> The stormwater management system requires upgrade at the DPW Garage located on Moran Street. The Garage also requires improved access.  <b>Solution:</b> The Engineer will design upgrades to the stormwater management system and access way improvements. The DPW will carry out the work.	1. No Progress 2. Funding was unavailable to begin work of this action.	1. Include 2. Keep as is 3. Not applicable
2021-Newton-003	Dam Failure Emergency Planning	Dam Failure	OEM	<b>Problem:</b> The Emergency Operations Plan lacks a dam failure component.	1. No Progress 2. Funding was unavailable to begin work of this action.	1. Include 2. Keep as is 3. Not applicable





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<b>Solution:</b> The Town will complete dam failure inundation mapping and include in updates to the Emergency Operations Plan for Town dams.		
2021-Newton-004	Municipal Building Wind Designs	Severe Winter Weather, Nor'easter	Town Engineer and Administration	<b>Problem:</b> The roof of the Newton Municipal Building located on Trinity Street is not designed to withstand high wind.  <b>Solution:</b> The Engineer will design a new roof to meet current standards for high winds on Newton Municipal Building located on Trinity Street. The Town will then replace the roof.	1. In Progress 2. A new roof was installed on the police department half of the complex.	1. Include 2. Revise solution to updating remaining portion of the roof. 3. Not applicable
2021-Newton-005	Snow Load Improvements at Fire House #2	Severe Winter Weather, Nor'easter	Town Engineer and Fire Department	<b>Problem:</b> Fire House #2's roof is not designed with modern snow load standards. Failure of the roof could threaten the critical services of the Fire House.  <b>Solution:</b> The Engineer will design a new roof to meet current standards for snow load of Fire House #2 located on Woodside Avenue. The Fire Department will then replace the roof.	1. Complete 2. A new fire house was constructed.	1. Discontinue 2. Not applicable 3. A new fire house was constructed.
2021-Newton-006	Wind Resistance Improvements	Severe Winter Weather, Nor'easter	Engineering and School Administration	<b>Problem:</b> Two buildings at the Sussex County Community College are not designed with	1. No Progress 2. Funding was unavailable to begin work of this action.	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	at Community College			windows to withstand wind damages.  <b>Solution:</b> The Town Engineer will provide guidance on the retrofit two buildings with impact resistant windows and shutters at the Sussex County Community College.		
2021-Newton-007	Snow Load Improvements at Community College	Severe Winter Weather, Nor'easter	Engineering and School Administration	<b>Problem:</b> Two buildings at the Sussex County Community College are not designed with modern snow load standards.  <b>Solution:</b> The Town Engineer will provide guidance on the retrofit of two buildings to meet current snow load standards at the Sussex County Community College.	1. No Progress 2. Funding was unavailable to begin work of this action.	1. Include 2. Keep as is 3. Not applicable
2021-Newton-008	Hazard Outreach	Dam Failure, Disease Outbreak, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Invasive Species, Nor'easter, Severe Weather,	Town Administration, OEM	<b>Problem:</b> Increased outreach is needed in the Town to increase public awareness.  <b>Solution:</b> The Town will design and conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	1. Ongoing 2. This action is now a capability of the Town.	1. Discontinue 2. Not applicable 3. This action is now a capability of the Town.



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Severe Winter Weather, Wildfire				
2021-Newton-009	Automatic Standby Generators at Critical Facilities	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter	Engineer, OEM	<b>Problem:</b> The Newton First Aid Squad EMS Station and three pumping stations require automatic standby generators.  <b>Solution:</b> The Engineer will research what size generators are needed to power each facility. The Town will then purchase and install the selected generators and necessary electrical components to supply backup power to the facilities.	1. No Progress 2. Funding was unavailable to begin work of this action.	1. Include 2. Keep as is 3. Not applicable
2021-Newton-010	Disaster Debris Management Plan	Dam Failure, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Invasive Species, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	DPW, OEM	<b>Problem:</b> The Town lacks a Disaster Debris Management Plan.  <b>Solution:</b> The Town will develop and implement a Disaster Debris Management Plan.	1. In Progress 2. NJDEP approved a facility in the Town as a debris-receiving facility, but there is no formal plan in place for debris management.	1. Include 2. Keep as is 3. Not applicable
2021-Newton-011	Hazard Event Archival Process	Dam Failure, Disease Outbreak, Drought, Earthquake,	OEM, DPW, Administration	<b>Problem:</b> The Town lacks procedures to capture loss and damage data from hazard events. This limits the knowledge of hazard events and	1. No Progress 2. The Town had other priorities which restricted work from beginning on this action.	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Invasive Species, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire		lessens the ability to apply for grant funding support.  <b>Solution:</b> The Town will develop programs/ procedures to capture and archive loss data from events including the location and length of roadway closures; high water marks, amount of municipal and residential damage.		
2021-Newton-012	Mutual Aid Agreements	Dam Failure, Disease Outbreak, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Invasive Species, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	OEM, Administration	<b>Problem:</b> Large scale disaster events require the assistance of outside municipal departments.  <b>Solution:</b> The Town will create, enhance, and maintain Mutual Aid agreements with neighboring communities for continuity of operations.	1. Complete 2. There is a countywide mutual aid agreement adopted via resolution by participating jurisdictions, including the Town.	1. Discontinue 2. Not applicable 3. There is a countywide mutual aid agreement adopted via resolution by participating jurisdictions, including the Town.
2021-Newton-013	Damage Assessment Procedures	Dam Failure, Disease Outbreak, Drought, Earthquake, Flood, Geologic, Hazardous	Administration, DPW, OEM	<b>Problem:</b> The Town lacks procedures to complete post disaster damage assessments.  <b>Solution:</b> The Town will identify and develop agreements with entities that can provide support	1. No Progress 2. The Town had other priorities which restricted work from beginning on this action.	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Materials, Hurricane and Tropical Storm, Invasive Species, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire		with FEMA/NJOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/NJOEM paperwork compilation, submissions, record-keeping.		
2021-Newton-014	Vegetation Management	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter, Invasive Species	Administration, DPW	<b>Problem:</b> Falling trees cause damage property, reduce continuity of operations, and can cause injuries or death.  <b>Solution:</b> The Town will implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption.	1. No Progress 2. The Town had other priorities which restricted work from beginning on this action.	1. Include 2. Keep as is 3. Not applicable
2021-Newton-015	Flood Damage Prevention Ordinance Update	Flood	FPA, Administration	<b>Problem:</b> The Town's flood damage prevention ordinance lacks discussion of the state's freeboard requirement.  <b>Solution:</b> The Town will update the ordinance to include the 1-foot freeboard requirement for new construction in the SFHA.	1. No Progress 2. The Town had other priorities which restricted work from beginning on this action.	1. Include 2. Keep as is 3. Not applicable



### 17.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Newton participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Newton would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Town priorities.

Table 17-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 17-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.





Table 17-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X	X	X		X	X
Disease Outbreak	X	X		X	X	X	X			X
Drought	X	X		X	X	X	X			X
Earthquake	X	X		X	X	X	X			X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X	X		X	X	X	X			X
Hazardous Materials	X	X		X	X	X	X			X
Hurricane	X	X	X	X	X	X	X	X	X	X
Infestation	X			X	X		X			
Nor'easter	X	X	X	X	X	X	X	X	X	X
Severe Weather	X	X	X	X	X	X	X	X	X	X
Severe Winter Weather	X	X	X	X	X	X	X	X		X
Wildfire	X	X		X	X	X	X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 17-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-NewtonT-01	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-NewtonT-02	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-NewtonT-03	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-NewtonT-04	Critical Facilities in the Floodplain	0	1	1	1	1	0	0	0	1	0	1	1	1	0	8	Medium
2025-NewtonT-05	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-NewtonT-06	Merriam Avenue School Pump Facility	0	1	1	1	1	0	1	0	1	0	1	1	0	1	9	Medium
2025-NewtonT-07	Public Works Garage Stormwater and Access Upgrades	0	1	1	1	1	0	0	0	1	1	1	1	1	0	9	Medium
2025-NewtonT-08	Dam Failure Emergency Planning	1	1	1	1	1	1	0	1	1	1	0	1	0	1	11	High
2025-NewtonT-09	Municipal Building Wind Designs	0	1	1	1	1	0	0	0	1	1	1	1	1	0	9	Medium
2025-NewtonT-10	Wind Resistance Improvements at Community College	0	1	1	1	1	0	0	0	1	1	1	1	1	0	9	Medium
2025-NewtonT-11	Snow Load Improvements at Community College	1	1	1	1	1	0	1	1	1	1	1	1	0	0	11	High
2025-NewtonT-12	Town Message Boards	1	0	1	1	1	0	0	1	1	1	0	1	0	0	8	Medium



Project Number	Project Name	Scores for Evaluation Criteria														Total	High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives		
2025-NewtonT-13	Automatic Standby Generators at Critical Facilities	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-NewtonT-14	Hazard Event Archival Process	0	0	1	1	1	1	0	1	1	1	0	1	0	1	9	Medium
2025-NewtonT-15	Damage Assessment Training	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-NewtonT-16	Tree Maintenance	0	1	1	1	1	1	1	1	1	1	0	1	0	0	10	Medium
2025-NewtonT-17	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-NewtonT-18	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-NewtonT-19	Paulins Kill Site 4 Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



## Action 2025-NewtonT-01. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Building Department, Town Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Town lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available								
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-NewtonT-02. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator										
<b>Supporting Agencies:</b>	Land Use Board, Town Administration										
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>										
<b>Description of the Problem:</b>	The Town does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Town in identifying and prioritizing properties to mitigate.										
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.										
<b>Estimated Cost:</b>	Staff time, Low										
<b>Potential Funding Sources:</b>	Town Budget										
<b>Implementation Timeline:</b>	Within 2 years										
<b>Goals Met:</b>	1, 2, 5										
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.										
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.										
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.										
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action will create a new Town capability, while enhancing its current NFIP capabilities.										
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.										
<b>Mitigation Category</b>	<div><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>										
<b>CRS Category</b>	<div><input checked="" type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><thead><tr><th>Action</th><th>Evaluation</th></tr></thead><tbody><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Only share opportunities when notified of grant funding</td><td>May not be enough time to garner interest or write application</td></tr><tr><td>Wait for information from the State on flood-damaged properties</td><td>May be a delay in notice</td></tr></tbody></table>	Action	Evaluation	No action	Current problem remains	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	Wait for information from the State on flood-damaged properties	May be a delay in notice		
Action	Evaluation										
No action	Current problem remains										
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application										
Wait for information from the State on flood-damaged properties	May be a delay in notice										



## Action 2025-NewtonT-03. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Engineering, Construction Department, Town Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Town does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Town staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Town		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Town and assure the Town's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Town's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	





## Action 2025-NewtonT-04. Critical Facilities in the Floodplain

<b>Lead Agency:</b>	Facility Managers																
<b>Supporting Agencies:</b>	Emergency Management, Floodplain Administrator																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Town has three critical facilities in the floodplain – the Don Bosco Dam, Houghton Dam, and a Public Solar Facility.																
<b>Description of the Solution:</b>	Coordinate with the facility managers at Don Bosco Dam, Houghton Dam, and NJSRRE1532193093 (a public solar facility) in the Town to support the mitigation of vulnerable structures via retrofit (e.g., elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Town Budget, Facilities																
<b>Implementation Timeline:</b>	5 years																
<b>Goals Met:</b>	2																
<b>Benefits:</b>	This action will remove or reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders.																
<b>Impact on Socially Vulnerable Populations:</b>	Retrofitting or relocating the identified structures will benefit socially vulnerable populations, as individuals within these populations rely on resources from various government facilities, transportation facilities, and medical and senior care facilities.																
<b>Impact on Future Development:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.																
<b>Impact on Critical Facilities/Lifelines:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.																
<b>Impact on Capabilities:</b>	This action will enhance the Town's current NFIP capabilities.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Floodproof existing structures</td><td>May not necessarily reduce risk</td></tr><tr><td>Construct floodwalls to stop flood issues</td><td>Will most likely interrupt natural floodplain function</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Floodproof existing structures	May not necessarily reduce risk	Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function								
Action	Evaluation																
No Action	Current problem remains																
Floodproof existing structures	May not necessarily reduce risk																
Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function																



## Action 2025-NewtonT-05. Dam Owner Partnership

<b>Lead Agency:</b>	Town OEM		
<b>Supporting Agencies:</b>	NJDEP, Dam Owners		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Don Bosco Dam and Houghton Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Town also has a high-hazard potential dam, the Paulins Kill Site 4 Dam, within its jurisdiction. These structures have the potential to impact those living nearby.		
<b>Description of the Solution:</b>	The Town will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Town OEM and shared with the County OEM.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5, 7		
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.		
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.		
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Town will be unaware of any safety concerns for the dam or its condition	
	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	
	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory	



## Action 2025-NewtonT-06. Merriam Avenue School Pump Facility

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Merriam Avenue School stormwater pump facility is undersized. This results in increased risk of flooding in the surrounding area that is serviced by the pump facility. Should the pump facility not be able to keep up with rainfall rates, flooding conditions could ensue.																
<b>Description of the Solution:</b>	The Town will upgrade the capacity of Merriam Avenue School stormwater pump facility. The Engineer will design the improvements and Public Works will carry out the upgrades.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	HMPG, BRIC, Municipal Budget																
<b>Implementation Timeline:</b>	5 years																
<b>Goals Met:</b>	2, 5, 6																
<b>Benefits:</b>	This action reduces the risk of flooding and damages to facilities. Furthermore, the action lowers the risk of interruption to potable water sources.																
<b>Impact on Socially Vulnerable Populations:</b>	Vulnerable areas that may otherwise experience a loss of water during heavy rain or flooding will be more likely to retain services.																
<b>Impact on Future Development:</b>	Communities with sound and resilient infrastructure encourage commercial and residential development.																
<b>Impact on Critical Facilities/Lifelines:</b>	Hydration lifeline is more likely to remain intact.																
<b>Impact on Capabilities:</b>	Maintaining operational water services reduces recovery time and costs.																
<b>Climate Change Considerations:</b>	Consideration should be taken regarding the increase in heavy rain and flood events as a result of climate change.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Replace with new pump station</td><td>Too expensive</td></tr><tr><td>Build secondary pump station</td><td>Expensive, space limited</td></tr></table>	Action	Evaluation	No action	Current problem continues	Replace with new pump station	Too expensive	Build secondary pump station	Expensive, space limited								
Action	Evaluation																
No action	Current problem continues																
Replace with new pump station	Too expensive																
Build secondary pump station	Expensive, space limited																



## Action 2025-NewtonT-07. Public Works Garage Stormwater and Access Upgrades

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The stormwater management system requires upgrade at the Public Works Garage located on Moran Street. An inefficient stormwater management system can lead to an increased risk of flooding. The Garage also requires improved access, which would permit the operations at the facility to continue during an emergency event.		
<b>Description of the Solution:</b>	The Engineer will design upgrades to the stormwater management system and access way improvements. Public Works will carry out the work.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	HMGP, BRIC, Town budget		
<b>Implementation Timeline:</b>	Within 4 years		
<b>Goals Met:</b>	2, 5, 6		
<b>Benefits:</b>	This action reduces the risk of flooding and damages to facilities. Furthermore, the action lowers the risk of interruption to potable water sources.		
<b>Impact on Socially Vulnerable Populations:</b>	Vulnerable areas that may otherwise experience a loss of water during heavy rain or flooding will be more likely to retain services.		
<b>Impact on Future Development:</b>	Communities with sound and resilient infrastructure encourage commercial and residential development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action permits the Public Works Garage to maintain its operations before, during, and after a hazardous event without risk to flooding conditions.		
<b>Impact on Capabilities:</b>	Maintaining operational water services reduces recovery time and costs.		
<b>Climate Change Considerations:</b>	Consideration should be taken regarding the increase in heavy rain and flood events as a result of climate change.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Problem continues.	
	Relocate DPW	Costly	
	Close DPW and relocated staff and equipment when flooding is anticipated	Relocation/staging of staff and equipment takes too much time	



## Action 2025-NewtonT-08. Dam Failure Emergency Planning

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	-		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Emergency Operations Plan (EOP) lacks a dam failure component and does not incorporate hazard mitigation principles. There are dams located in the Town which can cause impacts to their surrounding areas. Understanding and acknowledging those vulnerable to the hazard, identifying primary and secondary contacts for each dam, and properly planning and storing any emergency action plans or procedures is pertinent to the safety and resilience of the Town.		
<b>Description of the Solution:</b>	The Town will complete dam failure inundation mapping, include in updates for Town dams, and integrate hazard mitigation principles during the EOP updating process.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	1 year		
<b>Goals Met:</b>	5, 6		
<b>Benefits:</b>	The Emergency Operations Plan (EOP) details what the Town will do during a disaster (incident command implementation, command center location and activities, specific plans by department, etc.). Updating the EOP will permit the Town to integrate new plans, policies, capabilities, and hazard assessments.		
<b>Impact on Socially Vulnerable Populations:</b>	The section overview portion of the Emergency Operation Plan covers a discussion of a variety of topics, including population distribution and locations, including any concentrated populations of individuals with disabilities, others with access and functional needs, or individuals with limited English proficiency.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	The section overview portion of the Emergency Operation Plan covers a discussion of a variety of topics, including vulnerable critical facilities (e.g. nursing homes, schools, hospitals, infrastructure).		
<b>Impact on Capabilities:</b>	This action will update an already existing planning capability of the Town.		
<b>Climate Change Considerations:</b>	As impacts from climate change are increasingly felt, the contents in an Emergency Operations Plan, including in the basic plan and any annexes, may need to be updated.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		Current problem remains
	Integrate hazard mitigation principles in only hazard appendices		The plan will miss integration opportunities in the basic plan and annexes
	Ask County to integrate hazard mitigation into the County EOP		Town EOP still remains unintegrated



## Action 2025-NewtonT-09. Municipal Building Wind Designs

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Town Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
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<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The roof of the Newton Municipal Building located on Trinity Street is not designed to withstand high wind. High wind associated with severe winter weather, severe weather, hurricanes, and nor'easters have the potential to damage the roof, which may cause injury to the individuals inside of the building.																
<b>Description of the Solution:</b>	The Engineer will design a new roof to meet current standards for high winds on Newton Municipal Building located on Trinity Street. The Town will then replace the roof.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Town Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	2, 6																
<b>Benefits:</b>	This action will protect the Municipal Hall, a critical facility and community lifelines, from wind damage associated with severe weather, severe winter weather, hurricanes, nor'easters, and any debris which the winds may elevate.																
<b>Impact on Socially Vulnerable Populations:</b>	The Municipal Hall may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect the Municipal Hall from potential wind damages caused by debris.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as hurricanes, nor'easters, winter storms, and winds. This action accounts for a likely increase in flying debris which may damage the building.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low																
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Build new municipal hall</td><td>Costly, unnecessary</td></tr><tr><td>Replace all roof without referencing changes in building standards</td><td>May result in same issue</td></tr></table>	Action	Evaluation	No action	Current problem continues	Build new municipal hall	Costly, unnecessary	Replace all roof without referencing changes in building standards	May result in same issue								
Action	Evaluation																
No action	Current problem continues																
Build new municipal hall	Costly, unnecessary																
Replace all roof without referencing changes in building standards	May result in same issue																





## Action 2025-NewtonT-10. Wind Resistance Improvements at Community College

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	School Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Two buildings at the Sussex County Community College are not designed with windows to withstand wind damages. High winds associated with these hazards can blow debris into windows, potentially endangering those inside the structure, as well as damaging the structure itself, if the windows are not impact resistant.																
<b>Description of the Solution:</b>	The Town Engineer will provide guidance on the retrofit two buildings with impact resistant windows and shutters at the Sussex County Community College.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, School Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	2, 6																
<b>Benefits:</b>	This action will protect two buildings at the Sussex County Community College from wind damage associated with severe weather, severe winter weather, hurricanes, nor'easters, and any debris which the winds may elevate.																
<b>Impact on Socially Vulnerable Populations:</b>	The two buildings at the Sussex County Community College may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect the two buildings at the Sussex County Community College from potential wind damages caused by debris.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as hurricanes, nor'easters, winter storms, and winds. This action accounts for a likely increase in flying debris which may damage windows.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Build new structures</td><td>Costly, unnecessary</td></tr><tr><td>Replace all windows without conducting the study</td><td>May be unnecessary, costly</td></tr></table>			Action	Evaluation	No action	Current problem continues	Build new structures	Costly, unnecessary	Replace all windows without conducting the study	May be unnecessary, costly						
Action	Evaluation																
No action	Current problem continues																
Build new structures	Costly, unnecessary																
Replace all windows without conducting the study	May be unnecessary, costly																



## Action 2025-NewtonT-11. Snow Load Improvements at Community College

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	School Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Two buildings at the Sussex County Community College are not designed with modern snow load standards. This becomes an issue during severe winter weather and high winds associated with severe weather, hurricane, and nor'easter events, as individuals inside the buildings may become impacted should damage to the roof be significant.																
<b>Description of the Solution:</b>	The Town Engineer will provide guidance on the retrofit of two buildings to meet current snow load standards at the Sussex County Community College.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, School Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	2, 6																
<b>Benefits:</b>	This action will protect two buildings at the Sussex County Community College from collapse from snow loads associated with severe winter weather and nor'easters.																
<b>Impact on Socially Vulnerable Populations:</b>	The two buildings at the Sussex County Community College may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect the two buildings at the Sussex County Community College from suffering a potential roof collapse.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	Climate change is likely to increase the severity, but decrease the frequency, of severe weather events such as nor'easters and severe winter weather. This action takes in account the chance of heavier snowfalls.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Build new structures</td><td>Costly, unnecessary</td></tr><tr><td>Replace all roof without referencing changes in building standards</td><td>May result in same issue</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Build new structures	Costly, unnecessary	Replace all roof without referencing changes in building standards	May result in same issue								
Action	Evaluation																
No Action	Current problem continues																
Build new structures	Costly, unnecessary																
Replace all roof without referencing changes in building standards	May result in same issue																



## Action 2025-NewtonT-12. Town Message Boards

<b>Lead Agency:</b>	Town Administration										
<b>Supporting Agencies:</b>	Emergency Management, Public Works										
<b>Hazard(s) of Concern:</b>	<div><div><input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials</div><div><input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire</div></div>										
<b>Description of the Problem:</b>	The Town struggles to communicate the availability of warming and cooling centers, shelters, and impending hazardous weather. Warming and cooling centers are integral facilities, as they provide relief to vulnerable populations in the Town, who would otherwise be exposed to the hazardous associated with extreme temperatures.										
<b>Description of the Solution:</b>	Identify locations for and install permanent virtual boards across the Town. These message boards will be utilized to display critical Town information, including the locations and availability of warming and cooling centers, sheltering locations, and impending hazardous weather. Consider the purchase of portable virtual boards to place outside of the cooling and warming centers and sheltering locations.										
<b>Estimated Cost:</b>	Medium										
<b>Potential Funding Sources:</b>	HSGP, HTSG, Town Budget										
<b>Implementation Timeline:</b>	Within 3 years										
<b>Goals Met:</b>	1, 3, 7										
<b>Benefits:</b>	This action will direct constituents to available warming and cooling centers and shelters and indicate when hazardous events are anticipated. The action will increase the safety of the Town's residents and provide the Town with another method of communication.										
<b>Impact on Socially Vulnerable Populations:</b>	This action will provide all populations with an additional method to gather information about available warming and cooling centers and shelters. The action increase the safety of all populations.										
<b>Impact on Future Development:</b>	Not applicable										
<b>Impact on Critical Facilities/Lifelines:</b>	This action will direct constituents to available warming and centers and shelters, which are all critical facilities and community lifelines.										
<b>Impact on Capabilities:</b>	This action will strengthen the Town's communication capabilities, as well as provide another means of outreach.										
<b>Climate Change Considerations:</b>	Climate change projections show an anticipated warmer atmosphere, leading to higher temperatures. Despite the projected decrease in frequency of severe winter weather, the intensity of the events, including cold temperatures, are anticipated to increase.										
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</div>										
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)</div>										
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Purchase only portable message boards</td><td>Not all residents may pass the VBMs</td></tr><tr><td>Post on social media about locations and hazard events</td><td>Not all residents have social media</td></tr></table>	Action	Evaluation	No action	Current problem remains	Purchase only portable message boards	Not all residents may pass the VBMs	Post on social media about locations and hazard events	Not all residents have social media		
Action	Evaluation										
No action	Current problem remains										
Purchase only portable message boards	Not all residents may pass the VBMs										
Post on social media about locations and hazard events	Not all residents have social media										



## Action 2025-NewtonT-13. Automatic Standby Generators at Critical Facilities

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Emergency Management, Facility Managers		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	The Newton First Aid Squad EMS Station, three pumping stations, and a communications tower, all critical facilities, require automatic standby generators. These facilities provide the community with access to emergency response, ensure rainfall is removed in a timely fashion to prevent flooding, and lines of communication – both amongst themselves and to emergency service providers should it be needed.		
<b>Description of the Solution:</b>	The Engineer will research what size generators are needed to power each facility. The Town will then purchase and install the selected generators and necessary electrical components to supply backup power to the facilities.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5, 6, 7		
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)		
<b>CRS Category</b>	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		
<b>CRS Category</b>	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	



## Action 2025-NewtonT-14. Hazard Event Archival Process

<b>Lead Agency:</b>	Emergency Management										
<b>Supporting Agencies:</b>	Public Works, Town Administration										
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire									
<b>Description of the Problem:</b>	The Town lacks procedures to capture loss and damage data from hazard events. This limits the knowledge of hazard events and lessens the ability to apply for grant funding support. Understanding how a historical hazardous event impacted the community will provide a better understanding of how similar hazard events may impact the Town today.										
<b>Description of the Solution:</b>	The Town will develop programs/ procedures to capture and archive loss data from events including the location and length of roadway closures; high water marks, amount of municipal and residential damage.										
<b>Estimated Cost:</b>	Low, Staff Time										
<b>Potential Funding Sources:</b>	Municipal Budget										
<b>Implementation Timeline:</b>	Within 3 years										
<b>Goals Met:</b>	4										
<b>Benefits:</b>	This action will permit the Town to identify and document hazard events which have cause loss or damages in the Town to public and private structures, as well as human loss. Documenting these criteria can assist in future grant applications to fund various mitigation projects.										
<b>Impact on Socially Vulnerable Populations:</b>	This action may lead to the identification of additional vulnerable populations within the Town, including those who may be located in areas which are repetitively impacted by certain hazard events.										
<b>Impact on Future Development:</b>	This action may lead to an evaluation of how and where structures are being built, potentially leading to restriction in future development.										
<b>Impact on Critical Facilities/Lifelines:</b>	This action may lead to the identification of critical facilities and community lifelines which are repetitively impacted by hazardous events. The identification of these facilities and documenting how they are impacted can lead to future mitigation actions.										
<b>Impact on Capabilities:</b>	This action will create a new loss and damage tracking capability for the Town.										
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of hazardous events. This action will create a system for the Town to document how these events impacted its constituents and property.										
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)									
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)									
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th><th>Evaluation</th></tr> </thead> <tbody> <tr> <td>No action</td><td>Current problem remains</td></tr> <tr> <td>Do not ask for input from constituents</td><td>Full spectrum of damages may not be captures</td></tr> <tr> <td>Only record data when the Town submits from Public Assistance</td><td>Will limit the hazard occurrences being recorded</td></tr> </tbody> </table>	Action	Evaluation	No action	Current problem remains	Do not ask for input from constituents	Full spectrum of damages may not be captures	Only record data when the Town submits from Public Assistance	Will limit the hazard occurrences being recorded		
Action	Evaluation										
No action	Current problem remains										
Do not ask for input from constituents	Full spectrum of damages may not be captures										
Only record data when the Town submits from Public Assistance	Will limit the hazard occurrences being recorded										



## Action 2025-NewtonT-15. Damage Assessment Training

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Public Works, Sussex County, NJOEM		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div>		
<b>Description of the Problem:</b>	The Town lacks procedures to complete post disaster damage assessments. Damage assessment tools have been created and provided by NJOEM; however, the Town is not trained on these capabilities produced by NJOEM. Being able to perform damage assessments can increase the likelihood the Town will receive financial assistance following a hazard event, should a declaration be declared, and the damage threshold be met.		
<b>Description of the Solution:</b>	Work with regional agencies (i.e. County and NJOEM) to help develop damage assessment capabilities at the local level to include training and certification programs (e.g. code officials, floodplain managers, engineers).		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Staff time		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	This action will improve safety and security to those impacted by an event which produced structural damage to their property.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations are often the most at-risk to potentially poor structural integrity of living spaces. This action will produce individuals trained in damage assessments, of which individual assistance may be the result.		
<b>Impact on Future Development:</b>	The outcome of damage assessments can assist in the strengthening of future building codes and zoning restrictions.		
<b>Impact on Critical Facilities/Lifelines:</b>	Individuals trained in conducting damage assessments will be able to provide these assessments at critical facilities.		
<b>Impact on Capabilities:</b>	This action will add a capability to the Town of having personnel on staff able to complete damage assessments of structures.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, leading to an increased demand for individuals trained in conducting damage assessments.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Train personnel not using NJOEM's damage assessment tool	Not utilizing NJOEM's damage assessment tool could cause discrepancies and inconsistencies when reporting damages, leading to a potential loss of public or individual assistance	





	Rely on state or federal resources	These services may or may not be available
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## Action 2025-NewtonT-16. Tree Maintenance

<b>Lead Agency:</b>	Public Works		
<b>Supporting Agencies:</b>	Utility Companies, Property Owners, Shade Tree Commission		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	Falling trees cause damage property, reduce continuity of operations, and can cause injuries or death. Utility companies are responsible for the maintenance of those on or near utility lines. Private homeowners must ensure trees on private property are not threatening power availability/interruption.		
<b>Description of the Solution:</b>	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption in conjunction with property owners and utility companies. Enhance the Town's Tree Watch program by working with the Shade Tree Commission to remove hazardous trees.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	4 years		
<b>Goals Met:</b>	1, 2, 5, 7		
<b>Benefits:</b>	This action will result in the reduction of risk surrounding power outages by minimizing potential impacts from trees on utility lines.		
<b>Impact on Socially Vulnerable Populations:</b>	Some socially vulnerable population rely on power utilities for everyday care. If power outages are caused by a lack of tree maintenance, lives could potentially be at risk.		
<b>Impact on Future Development:</b>	This action assists in the protection of future development from impacts caused by tree collapses or branch falls as a result of severe weather, severe winter weather, hurricanes, and nor'easters.		
<b>Impact on Critical Facilities/Lifelines:</b>	Utility lines provide power to residencies, private businesses, government entities, and various providers. Not maintaining trees, tree limbs, or tree branches may impact the availability of power during severe weather and severe winter weather events.		
<b>Impact on Capabilities:</b>	The creation of a tree maintenance program would be a new capability for the Town.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to trees or tree limbs/branches falling or impacting utility lines and property.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Municipal-owned trees will be maintained	
	Do not contact utility companies	Trees along utility lines may impact power during severe weather and severe winter weather events	
	Do not contact property owners	Trees on private residencies may impact power during severe weather and severe winter weather events	



## Action 2025-NewtonT-17. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Building Department, Town Administration, NFIP State Coordinator, FEMA Regional Office		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	<p>The Town's flood damage prevention ordinance lacks discussion of the state's freeboard requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.</p>		
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.</p>		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>		
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>		
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>		
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>		
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>		
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem exists	
	Modify existing flood damage prevention ordinance	Time intensive	



	Leave NFIP	Residents lose flood insurance coverage
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## Action 2025-NewtonT-18. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements





## Action 2025-NewtonT-19. Paulins Kill Site 4 Dam Rehab

<b>Lead Agency:</b>	Municipal Engineer																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Paulins Kill Site 4 Dam is a Class I High Hazard Dam that is located along Little Hortons Pond. The dam is owned by the Town. Failure of the dam could result in inundation of densely populated areas, forested areas, critical facilities and community lifelines, and local roadways including Slate Hill Road and Swartswood Road. Although the dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work to complete an engineering study of Paulins Kill Site 4 Dam. The Town will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Town will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Little Hortons Pond as a flood risk reduction resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Little Hortons Pond as a flood risk reduction resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Little Hortons Pond as a flood risk reduction resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## 18. BOROUGH OF OGDENSBURG

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Borough of Ogdensburg with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Ogdensburg, describes who participated in the planning process, assesses Ogdensburg's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 18.1 HAZARD MITIGATION PLANNING TEAM

The Borough of Ogdensburg identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Borough departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 18-1 summarizes Borough officials who participated in the development of the annex and in what capacity. Additional documentation of the Borough's planning activities through Planning Partnership meetings is included in Volume I.

Table 18-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: George P. Hutnick, Mayor and EMC Address: 14 Highland Avenue, Ogdensburg, NJ 07439 Phone Number: (973) 903-1239 Email: oburgmayor@gmail.com	Name/Title: Robin Hough, Clerk Address: 14 Highland Avenue, Ogdensburg, NJ 07439 Phone Number: (973) 827-3444 Email: clerk@ogdensburgnj.gov
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Mike Vreeland, Borough Engineer Address: 111 Howard Blvd., Suite 110, Mt. Arlington NJ 07856 Phone Number: (862) 284-1100 Email: mvreeland@vancleefengineering.com	
<b>Additional Contributors</b>	
Name/Title: Richard Keslo, Former EMC Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: George P. Hutnick, Mayor Method of Participation: Assisted in the completion of municipal worksheets; Attended annex review meeting in December 2024; Completed sign off sheet	
Name/Title: Mike Vreeland, Borough Engineer Method of Participation: Assisted in the completion of municipal worksheets; Attended annex review meeting in December 2024; Completed sign off sheet	
Name/Title: Joe Vuich, Borough Planning Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Stephen Gordon, Chief of Police Method of Participation: Assisted in the completion of municipal worksheets; Completed sign off sheet	



Primary Point of Contact	Alternate Point of Contact
Name/Title: Robin Hough, Borough Clerk Method of Participation: Assisted in the completion of municipal worksheets; Attended annex review meeting in December 2024; Completed sign off sheet	
Name/Title: Mike Marceau, Chief Financial Officer Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Chris Ross, DPW Supervisor Method of Participation: Attended annex review meeting in December 2024	
Name/Title: Jacob Kinney, Assistant DPW Supervisor Method of Participation: Completed sign off sheet	
Name/Title: Bill Allen, Fire Chief Method of Participation: Attended annex review meeting in December 2024	

## 18.2 COMMUNITY PROFILE

The Borough of Ogdensburg is located in eastern Sussex County. It bordered to the north by Franklin Borough, to the east by Sparta Township and Hardyston Township, and to the south and west by Sparta Township. The Borough has a total area of approximately 2.3 square miles. South Ogdensburg is an unincorporated community located within the Borough. The Walkkill River and its tributaries flow through the Borough. Heaters Pond is large pond that is located along the Borough's eastern border.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 1.1 percent of the population is 5 years of age or younger, 1.5 percent is 65 years of age or older, 2.1 percent is non-English speaking, 1.7 percent is below the poverty threshold, and 1.2 percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Borough of Ogdensburg, 25 percent of households earn less than the basic cost of living and are considered socially vulnerable.

## 18.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Ogdensburg performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs



- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Ogdensburg to identify opportunities for integrating mitigation concepts into ongoing Borough procedures.

### 18.3.1 Planning and Regulatory Capability and Integration

Table 18-2 summarizes the planning and regulatory tools that are available to Ogdensburg.

Table 18-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	State Uniform Construction Code Act (N.J.S.A. 52:27D-119 et seq.).	State	Department of Community Affairs
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Borough of Ogdensburg relinquished its jurisdiction of the administration and enforcement of the Uniform Construction Code and transferred jurisdiction for the administration and enforcement of the Uniform Construction Code to the Department of Community Affairs of the State of New Jersey.</i>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 30, Land Development	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.</i>				
<b>Subdivision Code</b>	Yes	Chapter 30, Land Development	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.</i>				
<b>Site Plan Code</b>	Yes	Chapter 30, Land Development	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Approval of a site plan by the Planning Board is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Stormwater Management Code</b>	Yes	Chapter 30 Land Development, Subsection 502 – Drainage, December 11, 2023	Local	Public Works

How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.*

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.

- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?

Not all provisions of this law have become effective at the time of the writing of this plan.

<b>Growth Management</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Environmental Protection Ordinance(s)</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 20 Flood Damage Prevention; Amended by Ordinance 13-2024 in November 2024	Local	Engineering
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How has or will this be integrated with the HMP and how does this reduce risk?

It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas through the establishment of comprehensive regulations for management of flood hazard areas, designed to:

- Protect human life and health;
- Prevent unnecessary disruption of commerce, access, and public service during times of flooding;
- Manage the alteration of natural floodplains, stream channels and shorelines;
- Manage filling, grading, dredging and other development which may increase flood damage or erosion potential;
- Prevent or regulate the construction of flood barriers which will divert floodwater or increase flood hazards;
- Contribute to improved construction techniques in the floodplain;
- Minimize damage to public and private facilities and utilities;
- Help maintain a stable tax base by providing for the sound use and development of flood hazard areas;
- Minimize the need for rescue and relief efforts associated with flooding;
- Ensure that property owners, occupants, and potential owners are aware of property located in flood hazard areas;
- Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events; and
- Meet the requirements of the National Flood Insurance Program for community participation set forth in Title 44 Code of Federal Regulations, Section 59. 22.

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Emergency Management Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Change Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	Master Plan, December 2008; Master Plan Re-examination November 2018	Local	Borough Council
How has or will this be integrated with the HMP and how does this reduce risk? <i>The plan is intended to serve as a guide with which to protect and enhance the quality of life in Ogdensburg. It accomplishes this by fostering orderly, manageable, and cost-effective growth and establishing a framework for future land use decisions.</i>				
<b>Capital Improvement Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	Yes	Stormwater Management Plan, May 5, 2023	Local	Building Council
How has or will this be integrated with the HMP and how does this reduce risk? <i>The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. The plan also addresses the review and update of existing ordinances and other planning documents to allow for project designs that include low impact development techniques. The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought.</i>				
<b>Stormwater Pollution Prevention Plan</b>	Yes	Stormwater Pollution Prevention Plan, October 27, 2023	Local	Stormwater Coordinator
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Stormwater Pollution Prevention Plan is used to identify all potential pollution sources that could come into contact with stormwater leaving a site.</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Open Space Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Urban Water Management Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Habitat Conservation Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Economic Development Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Shoreline Management Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Community Wildfire Protection Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Community Forest Management Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Transportation Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Agriculture Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Climate Action/ Resilience/Sustainability Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Tourism Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Business/ Downtown Development Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Emergency Operations Plan, June 2024	Local	Borough Council
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Operations Plan aims to assess the Borough's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 18.3.2 Development and Permitting Capability

Table 18-3 summarizes the capabilities of Ogdensburg to oversee and track development.

Table 18-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	No	The Borough relinquished its jurisdiction of the administration and enforcement of the Uniform Construction Code and transferred jurisdiction to the Department of Community Affairs of the State of New Jersey. The Borough relies on information received from the Department of Community Affairs of the State of New Jersey.
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain development permits
Do you have a buildable land inventory?	No	-



	Yes/No	Comment
<ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>		
Describe the level of buildout in your jurisdiction.	N/A	The Borough of Ogdensburg has limited developable lands due to land preservation and conservation constraints from the Highlands Council. The areas which have the potential for development are primarily located in residentially zoned locations, according to the Borough Zoning Map and the September 2009 Ogdensburg Borough Municipal Build-Out Report performed by the New Jersey Highlands Council.

### 18.3.3 Administrative and Technical Capability

Table 18-4 summarizes potential staff and personnel resources available to Ogdensburg and their current responsibilities that contribute to hazard mitigation.

Table 18-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Land Use Board has the same powers as a Planning and Zoning Board. The Board can hear and decide appeals, hear and decide requests for interpretation of the zoning map, among other allowances.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	The Public Works Department maintains the Borough roads. The Public Works Garage is the Borough's recycling center.
Construction/Building/Code Enforcement Department	Yes	The Zoning Officer is also the Borough's Code Enforcement Officer. The Borough relinquished its jurisdiction of the administration and enforcement of the Uniform Construction Code and transferred jurisdiction to the Department of Community Affairs of the State of New Jersey.
Emergency Management/Public Safety Department	Yes	The Borough's Emergency Management Coordinator is George Hutnick. The Borough has a Police Department, which is made up of 7 officers. The Borough also has its own Fire Department.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Public Works



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Mutual aid agreements	Yes	County, neighboring municipalities
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Borough Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	-
Planners or engineers with an understanding of natural hazards	Yes	Borough Engineer
Staff with expertise or training in benefit/cost analysis	Yes	Borough Engineer
Professionals trained in conducting damage assessments	Yes	Borough Engineer
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Borough Engineer
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Contracted
Emergency manager	Yes	George Hutnick
Grant writers	Yes	Borough Engineer
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 18.3.4 Fiscal Capability

Table 18-5 summarizes financial resources available to Ogdensburg.

Table 18-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes





Financial Resources	Accessible or Eligible to Use? (Yes/No)
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Clean Water Act 319 Grants - Yes

### 18.3.5 Education and Outreach Capability

Table 18-6 summarizes the education and outreach resources available to Ogdensburg.

Table 18-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Mayor and OEM Coordinator
Personnel skilled or trained in website development	Yes	Outside contractor
Hazard mitigation information available on your website	Yes	The Municipal Stormwater webpage details stormwater management efforts within the Borough.
Social media for hazard mitigation education and outreach	Yes	Facebook and Town website
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Board reappointed at mayor and council reorganization meeting
Warning systems for hazard events	Yes	Fire Department whistle, County's Reverse 911.
Natural disaster/safety programs in place for schools	Yes	The schools have plans and guidelines for pandemics. The schools also practice fire drills.
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	The Borough's Board of Health conducts outreach to socially vulnerable populations and underserved communities. These populations may also utilize the Borough-wide notification system to stay up to date with any Borough events, news, or incidents.
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Newsletter that gets sent twice a year with relevant Borough information. Utilize the school's digital board and static board at the Fire Department.



### 18.3.6 Community Classifications

Table 18-7 summarizes classifications for community programs available to Ogdensburg.

Table 18-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities Classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 18.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 18-8 summarizes the adaptive capacity for each identified hazard of concern and the Borough’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 18-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate



Hazard	Adaptive Capacity - Strong/Moderate/Weak
Wildfire	Moderate

## 18.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 18-1 is responsible for maintaining this information.

### 18.4.1 NFIP Statistics

Table 18-9 summarizes the NFIP policy and claim statistics for Ogdensburg.

Table 18-9. Ogdensburg NFIP Summary of Policy and Claim Statistics

# Policies	8
# Claims (Losses)	9
Total Loss Payments	\$49,121.63
# Repetitive Loss Properties (NFIP definition)	1
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA Region II 2024

### 18.4.2 Flood Vulnerability Summary

Table 18-10 provides a summary of the NFIP program in Ogdensburg.

Table 18-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Areas prone to flooding in the Borough include Brooks Flat Road, Edison Road (at the crossway between two ponds, heavy rain) and Courtown Road. Heavy rains cause these roads to flood from the Wallkill River and/or Heaters Pond. The flooding is temporary and primarily manageable.



NFIP Topic	Comments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Work with mayor and council and engineering
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Engineer
Are any certified floodplain managers on staff in your jurisdiction?	Yes, Engineer
Do you have access to resources to determine possible future flooding conditions from climate change?	None
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would consider attending continuing education and/or certification training on floodplain management if it were offered and if authorized by the Borough's governing body. The FPA indicated that the Borough's Emergency Management Coordinator and DPW Supervisor would possibly attend the training as well.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Engineering capability
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Engineering
What are the barriers to running an effective NFIP program in the community, if any?	None
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	No CAV on record; last CAC recorded was May 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 20 Flood Damage Prevention; Amended by Ordinance 13-2024
What is the date that your flood damage prevention ordinance was last amended?	November 12, 2024



NFIP Topic	Comments
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program exceeds minimum requirements.
Are there other local ordinances, plans, or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Yes, various ordinances, plans, and programs
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 18.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 18-11 through Table 18-13.

Table 18-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)



Table 18-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
The Borough indicated there has been to recent major development or infrastructure between 2019 to present.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 18-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
The Borough indicated there are no known or anticipated major development or infrastructure in the next five years.					

## 18.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Ogdensburg's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 18.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Borough are shown in Figure 18-1 through Figure 18-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Ogdensburg has significant exposure. The maps show the location of potential new development, where available.



Figure 18-1. Ogdensburg Flood and Sinkhole Hazard Area Extent and Location Map

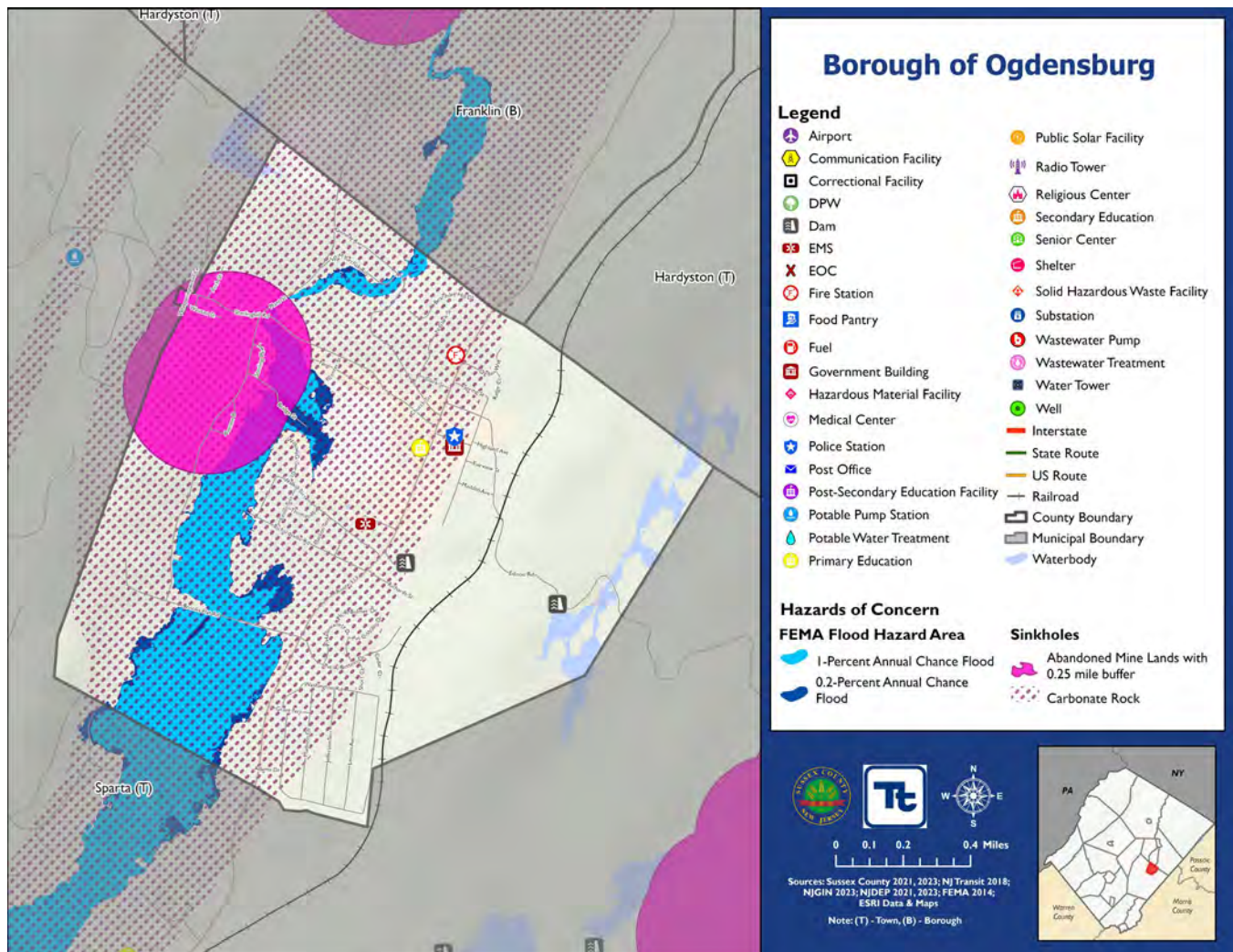


Figure 18-2. Ogdensburg Hazardous Materials and Wildfire Hazard Area Extent and Location Map

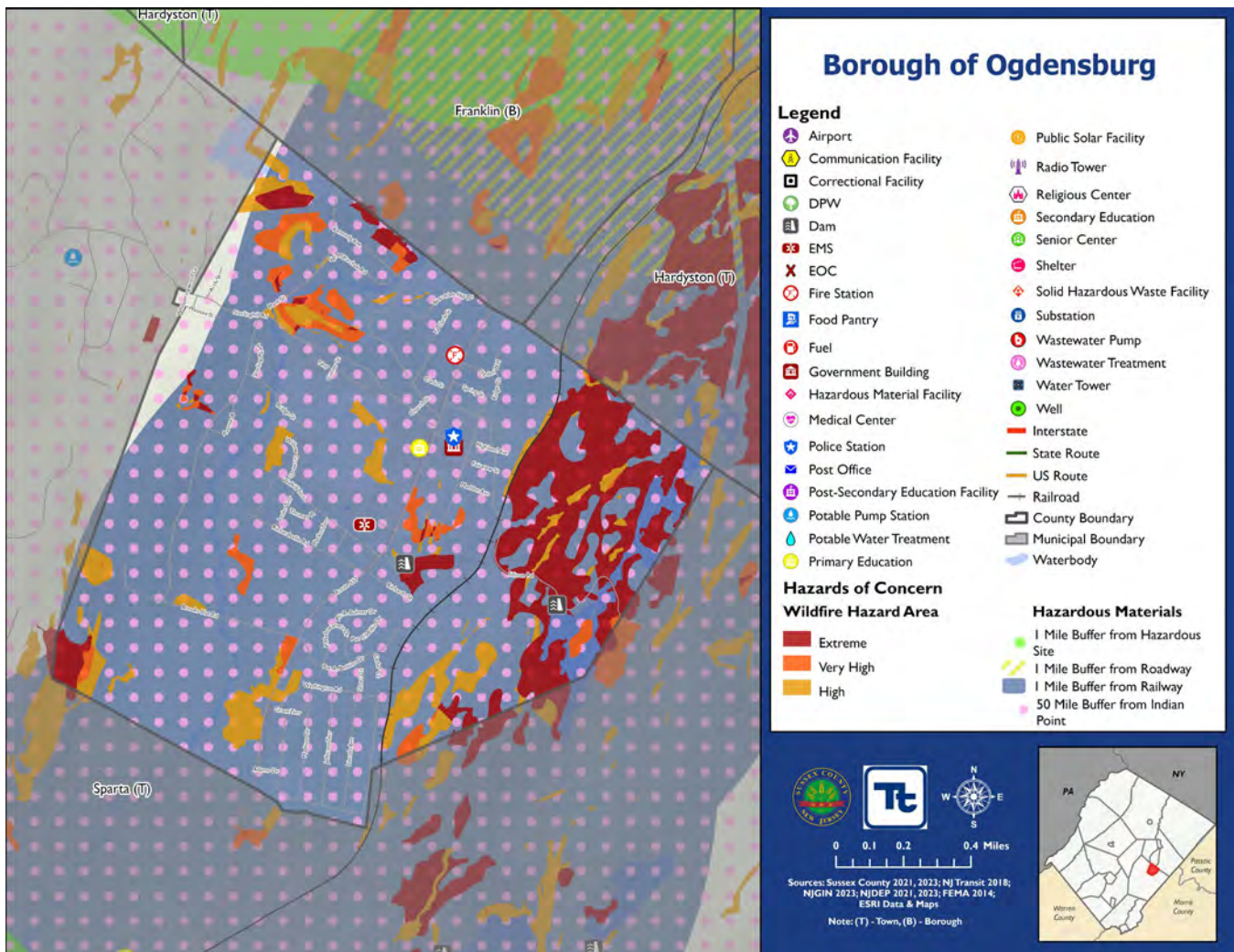
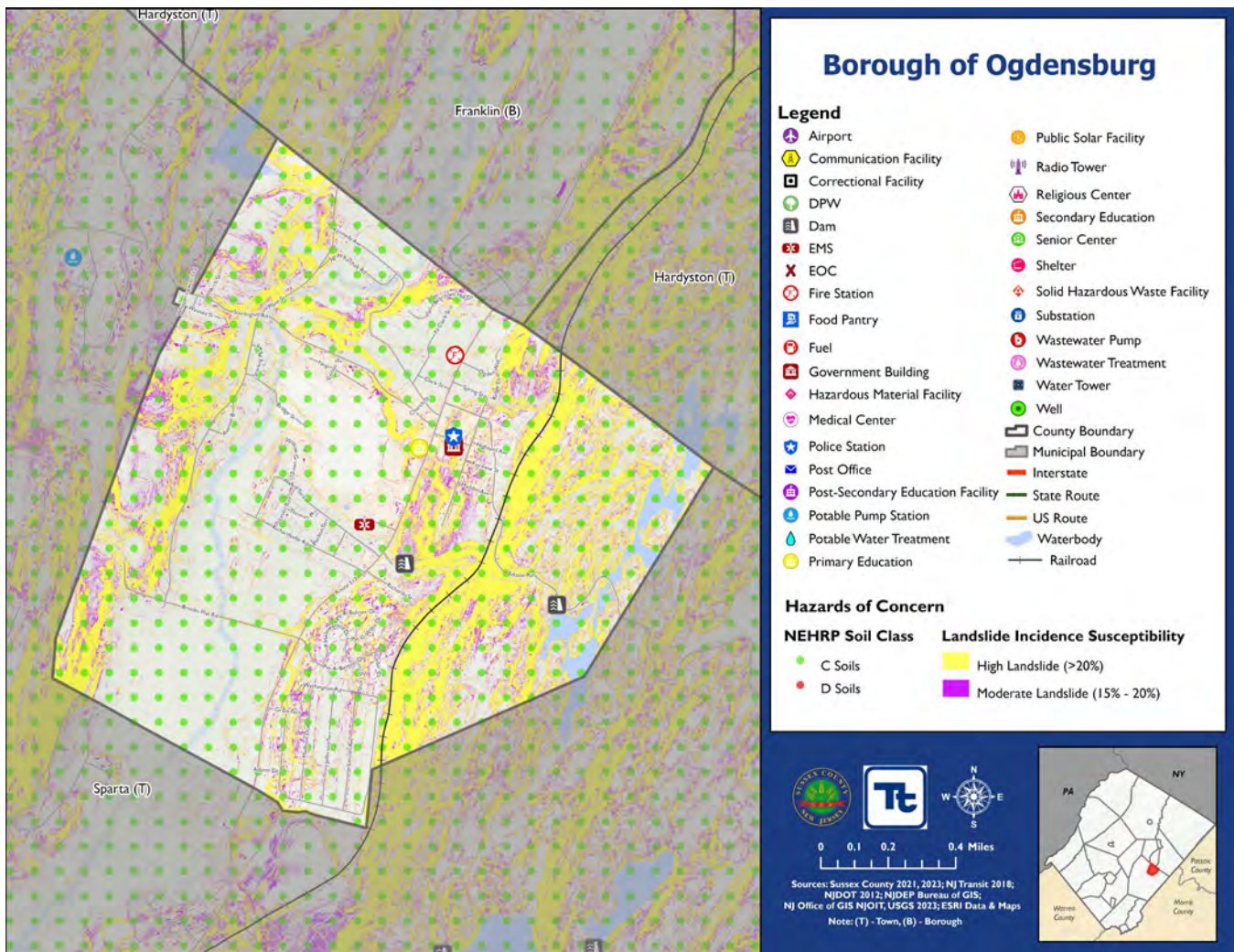




Figure 18-3. Ogdensburg Landslide and NEHRP Soils Hazard Area Extent and Location Map





## 18.6.2 Hazard Event History

The history of natural and non-natural hazard events in Ogdensburg is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 18-14 provides details on loss and damage in Ogdensburg during hazard events since the last hazard mitigation plan update.

Table 18-14. Hazard Event History in Ogdensburg

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Ogdensburg
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Borough followed masking and social distancing mandates.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Power outages and downed trees, no infrastructure or building losses.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Public Works operations included road preparations and snow removal. No infrastructure or building losses.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Power outages and downed trees, no infrastructure or building losses.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 18.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Ogdensburg .

### Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the



economy; community capabilities to address the hazard; and changing future climate conditions. Ogdensburg reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Borough indicated the rankings were accurate.

Table 18-15 shows Ogdensburg's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 18-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 18-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 18-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
The Borough does not have any identified critical facilities located in the 1- or 0.2-percent annual chance floodplains.					

Source: NJGIN 2023; Sussex County 2021, 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Ogdensburg:

- Heaters Pond Dam



## 18.6.4 Identified Issues

After review of Ogdensburg's hazard event history, hazard rankings, hazard location, and current capabilities, Ogdensburg identified the following vulnerabilities within the community:

- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has one repetitive loss property, but other properties may be impacted by flooding as well.
- Backup power sources are necessary to maintain critical services for critical facilities. The Ogdensburg Public School (100 Main St, Ogdensburg, NJ 07439) and the Ogdensburg Fire Department (30 Main St, Ogdensburg, NJ 07439) require backup power sources. The school is a K-8 school and would serve as a shelter in place shelter during a sudden hazard event. The Fire Department, in addition to its standard operations, is utilized as a cooling and warming shelter for those displaced by an event or incident temporarily.
- The Borough lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The Borough has a high-hazard potential dam, the Heaters Pond Dam, within its jurisdiction. These structures have the potential to impact those living nearby. Understanding and acknowledging those vulnerable to the hazard, identifying primary and secondary contacts for the dam, and properly planning and storing any emergency action plans or procedures is pertinent to the safety and resilience of the Borough.
- The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Borough. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.
- The current comprehensive plan is outdated and does not incorporate hazard mitigation principles. The comprehensive plan guides land development in the Borough. Incorporating hazard mitigation principles into the comprehensive plan can assist in the prevention of land development in hazard areas, such as floodplains and bordering forested areas.
- The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- Heaters Pond Dam is a Class I High Hazard Dam that is located on Heaters Pond. The dam is owned by the Borough. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including Edison Road and Hawthorne Lake Road. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.





## 18.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 18.7.1 Past Mitigation Action Status

Table 18-17 indicates progress on the Borough's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 18.7.2 Additional Mitigation Efforts

Ogdensburg did not identify any additional mitigation efforts completed since the last HMP.



Table 18-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Ogdensburg-001	Ogdensburg Public School Backup Power	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter	Engineer, School District, OEM	<p><b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. The Ogdensburg Public School (100 Main St, Ogdensburg, NJ 07439) requires a backup power source. The school is a K-8 school and would serve as a shelter in place shelter during a sudden hazard event.</p> <p><b>Solution:</b> The Engineer will research what size generator is needed to power the Ogdensburg Public School. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the Ogdensburg Public School.</p> <p>In addition, the School will update the shower fixtures in the locker rooms and purchase cots to meet sheltering needs.</p>	1. No Progress 2. Not Applicable	1. Include 2. Keep as is 3. Not Applicable
2021-Ogdensburg-002	Ogdensburg Fire House Backup Power	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter	Engineer, Fire Department, OEM	<p><b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. The Ogdensburg Fire Department (718 Ford St, Ogdensburg, NY 13669) requires a backup power source.</p> <p><b>Solution:</b> The Engineer will research what size generator is needed to</p>	1. No Progress 2. Not Applicable	1. Include 2. Keep as is 3. Not Applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				power the Ogdensburg Fire House. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the Ogdensburg Fire House.		
2021-Ogdensburg-003	Repetitive Loss Mitigation	Flood, Severe Weather	NFIP Floodplain Administrator, supported by homeowners	<p><b>Problem:</b> Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has 2 repetitive loss properties, but other properties may be impacted by flooding as well.</p> <p><b>Solution:</b> Conduct outreach to 10 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information, and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas). Areas of focus will include flood prone locations such as Predmore Road, Center Street, Richardville, Brooks Flat and Edison Avenue.</p>	1. No Progress 2. Not Applicable	1. Include 2. Keep as is 3. Not Applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Ogdensburg-004	Flood Damage Prevention Ordinance Update	Flood	FPA, Administration	<b>Problem:</b> The Borough's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.  <b>Solution:</b> The Borough will update the Flood Damage Prevention Ordinance to include the freeboard requirement.	1. No Progress 2. Not Applicable	1. Include 2. Keep as is 3. Not Applicable
2021-Ogdensburg-005	Establish First Aid Squad Building as Emergency Warming Station	Severe Weather, Severe Winter Weather, Hurricane, Nor'easter, Flood	Engineer, OEM	<b>Problem:</b> The Borough is seeking to establish the First Aid Squad building as an emergency warming station. Upgrades will be needed to the facility to meet these needs.  <b>Solution:</b> The Borough will complete the following upgrades to the First Aid Squad building to allow for use as an emergency warming station: <ul style="list-style-type: none"> <li>• Installation of a backup generator</li> <li>• Roadway and drainage improvements to maintain access in flooding events</li> </ul>	1. Discontinue 2. Ogdensburg First Aid Squad folded in 2021 and the building was transferred to the Borough.	1. Discontinue 2. Not Applicable 3. Ogdensburg First Aid Squad folded in 2021 and the building was transferred to the Borough.
2021-Ogdensburg-006	Disaster Debris Management Plan	Dam Failure, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm,	OEM, Public Works	<b>Problem:</b> The Borough lacks a Disaster Debris Management Plan to address post disaster cleanup.  <b>Solution:</b> The Borough will develop and adopt a Disaster Debris Management Plan.	1. No Progress 2. Not Applicable	1. Include 2. Keep as is 3. Not Applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Nor'easter, Severe Weather, Severe Winter Weather, Wildfire				



### 18.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Ogdensburg participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Ogdensburg would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Borough priorities.

Table 18-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 18-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.





Table 18-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X	X	X		X	X
Disease Outbreak	X	X		X	X	X	X		X	X
Drought	X	X		X	X	X	X		X	X
Earthquake	X	X		X	X	X	X		X	X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X	X		X	X	X	X		X	X
Hazardous Materials	X	X		X	X	X	X		X	X
Hurricane	X	X		X	X	X	X		X	X
Infestation	X			X	X		X			X
Nor'easter	X	X		X	X	X	X		X	X
Severe Weather	X	X		X	X	X	X		X	X
Severe Winter Weather	X	X		X	X	X	X		X	X
Wildfire	X	X		X	X	X	X		X	X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 18-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-OgdensburgB-01	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-OgdensburgB-02	Backup Generator at Critical Facilities	1	1	0	1	1	0	0	1	1	1	0	1	1	0	9	Medium
2025-OgdensburgB-03	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-OgdensburgB-04	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-OgdensburgB-05	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-OgdensburgB-06	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-OgdensburgB-07	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-OgdensburgB-08	Comprehensive Plan Update	1	1	1	1	1	1	0	1	1	1	0	1	0	1	11	High
2025-OgdensburgB-09	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-OgdensburgB-10	Heaters Pond Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



## Action 2025-OgdensburgB-01. Repetitive Loss Properties

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Sussex County		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has one repetitive loss property, but other properties may be impacted by flooding as well.		
<b>Description of the Solution:</b>	The Borough will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA FMA, FMA SWIFT, Municipal Budget, County Budget, Property Owners		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	2, 3		
<b>Benefits:</b>	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will enhance the Borough's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>		
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR)</div> <div><input checked="" type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem continues	
	Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas	
	Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event	



## Action 2025-OgdensburgB-02. Backup Generator at Critical Facilities

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works, Emergency Management, Borough Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input checked="" type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input checked="" type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input checked="" type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input checked="" type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
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<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Backup power sources are necessary to maintain critical services for critical facilities. The Ogdensburg Public School (100 Main St, Ogdensburg, NJ 07439) and the Ogdensburg Fire Department (30 Main St, Ogdensburg, NJ 07439) require backup power sources. The school is a K-8 school and would serve as a shelter in place shelter during a sudden hazard event. The Fire Department, in addition to its standard operations, is utilized as a cooling and warming shelter for those displaced by an event or incident temporarily.																
<b>Description of the Solution:</b>	Working with the Borough Engineer, identify the proper size generator for the municipal hall. Once identified, purchase and install a permanent generator and necessary electrical components to supply backup power.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5, 6, 7																
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.																
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Microgrid</td><td>Costly and difficult to implement.</td></tr><tr><td>Solar panels and battery backup</td><td>Solar power is unlikely to be able to provide battery power for extended power failure events.</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Microgrid	Costly and difficult to implement.	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.								
Action	Evaluation																
No Action	Current problem remains																
Microgrid	Costly and difficult to implement.																
Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.																



## Action 2025-OgdensburgB-03. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Building Department, Borough Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
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<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Borough lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available								
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-OgdensburgB-04. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator										
<b>Supporting Agencies:</b>	Planning Board, Zoning Board, Borough Administration										
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>										
<b>Description of the Problem:</b>	The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.										
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.										
<b>Estimated Cost:</b>	Staff time, Low										
<b>Potential Funding Sources:</b>	Borough Budget										
<b>Implementation Timeline:</b>	Within 2 years										
<b>Goals Met:</b>	1, 2, 5										
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.										
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.										
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.										
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action will create a new Borough capability, while enhancing its current NFIP capabilities.										
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.										
<b>Mitigation Category</b>	<div><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div>		<div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>								
<b>CRS Category</b>	<div><input checked="" type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div>		<div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>								
<b>Priority</b>	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Only share opportunities when notified of grant funding</td><td>May not be enough time to garner interest or write application</td></tr><tr><td>Wait for information from the State on flood-damaged properties</td><td>May be a delay in notice</td></tr></table>	Action	Evaluation	No action	Current problem remains	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	Wait for information from the State on flood-damaged properties	May be a delay in notice		
Action	Evaluation										
No action	Current problem remains										
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application										
Wait for information from the State on flood-damaged properties	May be a delay in notice										





## Action 2025-OgdensburgB-05. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator				
<b>Supporting Agencies:</b>	Emergency Management, Building Department				
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials</td><td><input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire</td></tr></table>			<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire
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<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"><li>• Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li><li>• Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li><li>• Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li><li>• Require permits for floodplain development.</li></ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>				
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>				
<b>Estimated Cost:</b>	Low				
<b>Potential Funding Sources:</b>	Municipal budget				
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan				
<b>Goals Met:</b>	2, 5				
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.				
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.				
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.				
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.				
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.				
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.				
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
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<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>			



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-OgdensburgB-06. Dam Owner Partnership

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Borough Administration, Floodplain Administrator, Dam Owners, NJDEP																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Borough has a high-hazard potential dam, the Heaters Pond Dam, within its jurisdiction. These structures have the potential to impact those living nearby. Understanding and acknowledging those vulnerable to the hazard, identifying primary and secondary contacts for the dam, and properly planning and storing any emergency action plans or procedures is pertinent to the safety and resilience of the Borough.																
<b>Description of the Solution:</b>	Work with the owners of the dam to ensure inspections and safety procedures are up to date. Maintain a copy of the dam's EAP at the Borough's OEM, in a secure location. Identify mitigation actions to ensure the integrity of the dam and that it is protected up to the 0.2-percent flood hazard area.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 7																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Borough will be unaware of any safety concerns for the dam or its condition</td></tr><tr><td>Utilize information from NJDEP</td><td>Owners may not be required to submit a safety plan to the State</td></tr><tr><td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr></table>	Action	Evaluation	No Action	Borough will be unaware of any safety concerns for the dam or its condition	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory								
Action	Evaluation																
No Action	Borough will be unaware of any safety concerns for the dam or its condition																
Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State																
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory																



## Action 2025-OgdensburgB-07. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Borough. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Borough events, the Borough newsletters, social media, the Borough website, and having the materials on display for the public at Borough libraries and offices.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Borough. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Borough will become educated on hazards risks. The Borough will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-OgdensburgB-08. Comprehensive Plan Update

<b>Lead Agency:</b>	Borough Planning Board		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The current comprehensive plan is outdated and does not incorporate hazard mitigation principles. Incorporating hazard mitigation principles into the comprehensive plan can assist in the prevention of land development in hazard areas, such as floodplains and bordering forested areas.		
<b>Description of the Solution:</b>	The Borough will update its comprehensive plan. Ensure that the local comprehensive plan incorporates hazard mitigation techniques through a courtesy review or draft plans by the County Planning Department.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 4		
<b>Benefits:</b>	This action will have the Borough update its comprehensive plan, which has not been updated in many years. The integration of hazard mitigation principles will present the opportunity for the Borough to identify areas of the Borough which may be impacted by hazards and plan for future land use accordingly.		
<b>Impact on Socially Vulnerable Populations:</b>	The inclusion of hazard mitigation principles into the comprehensive plan may include discussions on how hazard risks may impact socially vulnerable populations in the Borough.		
<b>Impact on Future Development:</b>	This action will have a direct impact on future land use in the Borough, as the comprehensive plan guides land use principles in the Borough.		
<b>Impact on Critical Facilities/Lifelines:</b>	Updating the comprehensive plan to include hazard mitigation principles may present an opportunity to discuss hazard risks to critical facilities and lifelines in the Borough.		
<b>Impact on Capabilities:</b>	This action will update an already existing planning capability of the Borough, making it more resilient.		
<b>Climate Change Considerations:</b>	As impacts from climate change are increasingly felt, the contents in the Borough's comprehensive plan will need to be updated.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Integrate hazard mitigation principles in only plan elements	The plan will miss integration opportunities in the comprehensive plan main document	
	Integrate hazard mitigation principles in only comprehensive plan main document	The plan will miss integration opportunities in the plan elements	



## Action 2025-OgdensburgB-09. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Borough Administration, Sussex County																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input checked="" type="checkbox"/> Disease Outbreak</td><td><input checked="" type="checkbox"/> Infestation</td></tr><tr><td><input checked="" type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input checked="" type="checkbox"/> Disease Outbreak	<input checked="" type="checkbox"/> Infestation	<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input checked="" type="checkbox"/> Disease Outbreak	<input checked="" type="checkbox"/> Infestation																
<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.																
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal Budget																
<b>Implementation Timeline:</b>	2 years																
<b>Goals Met:</b>	1, 2, 3, 7																
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Borough by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Borough.																
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Borough.																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.																
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input checked="" type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current methods remain the only ones used</td></tr><tr><td>Rely on state or federal resources</td><td>Resources may be generalized and not specific to the risks in the Borough</td></tr><tr><td>Use only a few methods for distribution</td><td>Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance</td></tr></table>	Action	Evaluation	No action	Current methods remain the only ones used	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance								
Action	Evaluation																
No action	Current methods remain the only ones used																
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough																
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance																





## Action 2025-OgdensburgB-10. Heaters Pond Dam Rehab

<b>Lead Agency:</b>	Municipal Engineer																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Heaters Pond Dam is a Class I High Hazard Dam that is located on Heaters Pond. The dam is owned by the Borough. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including Edison Road and Hawthorne Lake Road. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work to complete an engineering study of Heaters Pond Dam. The Borough will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Borough will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input checked="" type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Heaters Pond as an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Heaters Pond as an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Heaters Pond as an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## 19. TOWNSHIP OF SANDYSTON

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Sandyston with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Sandyston, describes who participated in the planning process, assesses Sandyston's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 19.1 HAZARD MITIGATION PLANNING TEAM

The Township of Sandyston identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 19-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 19-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Kevin Pumphrey / EMC Address: 133 Route 645. Sandyston, NJ 07826 Phone Number: (973) 948-3520 ext. 301 Email: oem@sandystontownship.com	Name/Title: Amanda Lobban / Municipal Clerk Address: 133 Route 645. Sandyston, NJ 07826 Phone Number: (973) 948-3520 ext. 200 Email: clerk@sandystontownship.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Robert Huber / Construction Official Address: 133 Route 645. Sandyston, NJ 07826 Phone Number: (973) 948-3520 ext. 201 Email: deputyclerk@sandystontownship.com	
<b>Additional Contributors</b>	
Name/Title: Kevin Pumphrey / EMC Method of Participation: Assisted in the completion of municipal worksheets. Reviewed and approved final draft annex.	
Name/Title: Amanda Lobban / Municipal Clerk Method of Participation: Assisted in the completion of municipal worksheets. Reviewed and approved final draft annex.	
Name/Title: Robert Huber / Construction Official Method of Participation: Assisted in the completion of municipal worksheets. Reviewed and approved final draft annex.	
Name/Title: Harold E. Pellow / Engineer Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Jessica Caldwell / Planner Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: George Harper, Jr. / Mayor Method of Participation: Reviewed and approved final draft annex.	



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Name/Title: Roy C. McClain, CPWM / Road Foreman

Method of Participation: Assisted in the completion of municipal worksheets. Reviewed and approved final draft annex.

Name/Title: Michael Johnson / Code Enforcement

Method of Participation: Assisted in the completion of municipal worksheets.

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## 19.2 COMMUNITY PROFILE

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Sandyston Township is a small rural township located in the northwestern portion of Sussex County. It has a total area of 43.3 square miles. The Township is bordered to the north by Montague Township, to the south by Frankford, Walpack, and Hampton Townships, to the east by Wantage and Frankford Townships, and to the west by Pennsylvania. The Delaware River makes up the entire western border of the Township. Big Flat Brook, Little Flat Brook, and Tuttle's Corner Brook are all streams located within the Township. The following unincorporated communities are located within the Township: Shaytown, Hainesville, Abertown, Layton, Bevans, Tuttle's Corner, and Normanook.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 1.7-percent of the population is 5 years of age or younger, 1.3-percent is 65 years of age or older, 0-percent is non-English speaking, 1-percent is below the poverty threshold, and 1.4-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Township of Sandyston, 24-percent of households earn less than the basic cost of living and are considered socially vulnerable.

## 19.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Sandyston performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Sandyston to identify opportunities for integrating mitigation concepts into ongoing Township procedures.



### 19.3.1 Planning and Regulatory Capability and Integration

Table 19-2 summarizes the planning and regulatory tools that are available to Sandyston.

Table 19-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	Chapter 45 – Building Construction	State & Local	Construction Official
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The State Uniform Construction Code, building subcode, is hereby adopted and incorporated as fully as if set forth at length herein. The provisions shall be controlling in the construction, alteration, renovation, rehabilitation, maintenance, occupancy, and use of all buildings and structures therein contained within the corporate limits of the Township. The Construction Official is the chief administrator of the enforcing agency.</i></p>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 150 - Zoning	Local	Zoning Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.</i></p>				
<b>Subdivision Code</b>	Yes	Chapter 137 – Subdivision and Site Plan Review	Local	Building Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.</i></p>				
<b>Site Plan Code</b>	Yes	Chapter 137 – Subdivision and Site Plan Review	Local	Building Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Approval of a site plan is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.</i></p>				
<b>Stormwater Management Code</b>	Yes	Chapter 138 Stormwater Control	Local	Department of Public Works
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>It is the purpose of this chapter to establish minimum stormwater management requirements and controls for major development.</i></p>				
<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Growth Management</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 85 Hazardous Wastes, Chapter 100 Littering, and Chapter 141 Trees	Local	Volunteer Fire Department, Planning Board
How has or will this be integrated with the HMP and how does this reduce risk?				
<ul style="list-style-type: none"><li>Chapter 85 Hazardous Wastes: This chapter identified which parties may be held responsible for the supplies, material and other types of response expenses associated with a hazardous materials incident.</li><li>Chapter 100 Littering: This chapter identifies the Township's definition of litter and what repercussions an individual may face for littering.</li><li>Chapter 141 Trees: This chapter is intended to control and regulate the indiscriminate or excessive removal, large-scale clear-cutting, and destruction of trees and to control, regulate and prevent conditions which cause an increase in stormwater runoff, decrease aquifer recharge, impair the ambience or physical appearance of an individual property or neighborhood or unreasonably and/or unnecessarily diminish the natural vegetative screening or natural landscape viewscapes.</li></ul>				
<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 75 - Flood Damage Prevention	Federal, State & Local	Construction Official
How has or will this be integrated with the HMP and how does this reduce risk?				
<i>It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:</i> <ul style="list-style-type: none"><li><i>A. Protect human life and health;</i></li><li><i>B. Minimize expenditure of public money for costly flood control projects;</i></li><li><i>C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;</i></li><li><i>D. Minimize prolonged business interruptions;</i></li><li><i>E. Minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;</i></li><li><i>F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;</i></li><li><i>G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and</i></li><li><i>H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</i></li></ul>				
<b>Wellhead Protection</b>	Yes	Chapter 150 Zoning, Article IV General Regulations and Standards	Local	Zoning Department
How has or will this be integrated with the HMP and how does this reduce risk?				
This aquifer protection and well testing section is adopted to ensure the adequacy of potable groundwater supply for residential and commercial development in areas not served by public water supply and to ensure that such water is safe for human consumption and use. Abandoned and faulty wells may cause pollutants to reach the aquifer, creating risk to life safety of residents drawing water from that source. These provisions are established to promote the health, safety, and welfare of the citizens of the Township of Sandyston.				
<b>Emergency Management Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Change Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Other</b>	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

#### PLANNING DOCUMENTS

<b>General/Comprehensive Plan</b>	Yes	Master Plan 2008; Re-examined November 2018	Local	Township Committee
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Township seeks to retain its rural and small-town character, agricultural community, and abundant open space; conserve its natural resources; maintain a high quality, active life for its citizens; provide adequate and affordable housing for its citizens; and provide a feeling of purpose, place, and belonging for its citizens; and, in cooperation with the state and federal land management agencies, develop an economic base tailored to agricultural and natural resources tourism.*

<b>Capital Improvement Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Disaster Debris Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Stormwater Management Plan</b>	Yes	Stormwater Management Plan, 2005	Local	Department of Public Works
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How has or will this be integrated with the HMP and how does this reduce risk?

*The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. The plan also addresses the review and update of existing ordinances and other planning documents to allow for project designs that include low impact development techniques. The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought.*

<b>Stormwater Pollution Prevention Plan</b>	Yes	Stormwater Pollution Prevention Plan, 2005	Local	Department of Public Works
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How has or will this be integrated with the HMP and how does this reduce risk?

The Stormwater Pollution Prevention Plan is used to identify all potential pollution sources that could come into contact with stormwater leaving a site.

<b>Open Space Plan</b>	Yes	Master Plan 2008; Re-examined November 2018	Local	Township Committee
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Township continues to recognize the importance of preserved lands, in relation to both the proper functioning of local ecosystems and the Township's economic development, as evidenced by the focus on recreational tourism in the Sandyston Township Vision Statement from July 2010. With the area's long history of evictions, federal and state land acquisition, and the economic benefits of recreational tourism, the Township is paying close attention to National Park Service proposals to combine the Delaware Water Gap National Recreation Area and the Middle Delaware National Scenic and Recreational River into one Delaware Valley National Park and Preserve.*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	Yes	Master Plan 2008; Re-examined November 2018	Local	Township Committee
How has or will this be integrated with the HMP and how does this reduce risk? <i>The goal of this plan element is to provide opportunities for growth and development in appropriate areas that complement rather than destroy or negatively impact the Township's significant and diverse natural, historical, cultural, and manmade resources; and to ensure that the development within the Township complements the vision and general welfare of neighboring municipalities, is consistent with the Sussex County Strategic Growth Plan, encompasses applicable elements of the State Development and Redevelopment Plan, and considers Sandyston's relationship to the tri-state area.</i>				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	Yes	Community Wildfire Protection Plan, 2020	Local	Fire Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>The plan has goals to reduce the vulnerability of communities across the State to damage from wildfire, identify at risk wildland-urban interface areas, reduce excessive wildland fuel accumulations in and around areas of human development, increase community awareness of wildfire issues in New Jersey and promote opportunities to educate the public concerning the same, develop cohesive interagency wildfire risk reduction strategy, and develop partnerships to reduce the wildfire hazards.</i>				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Agriculture Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Action/Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Sandyston Township EOP, October 2023	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Operations Plan aims to assess the Township's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 19.3.2 Development and Permitting Capability

Table 19-3 summarizes the capabilities of Sandyston to oversee and track development.

Table 19-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	Building Department
<ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>		



	Yes/No	Comment
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain development permits
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	-
Describe the level of buildout in your jurisdiction.	N/A	Sandyston Township is unique in its large proportion of permanently preserved open space, approximately 70 percent of the municipality, which primarily contains lands owned by State or Federal entities. The residential and commercial villages of Layton and Hainesville are essentially surrounded on four sides by the Delaware Water Gap National Recreation Area, the Flatbrook Fish and Wildlife Management Area, the Hainesville Wildlife Management Area, and Stokes State Forest.

### 19.3.3 Administrative and Technical Capability

Table 19-4 summarizes potential staff and personnel resources available to Sandyston and their current responsibilities that contribute to hazard mitigation.

Table 19-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Sandyston Township Planning Board consists of nine members and two alternate members, as appointed by the Mayor and Township Committee. The Planning Board is authorized to adopt bylaws governing its procedural operation. The Planning Board exercises, to the same extent and subject to the same restrictions, all the powers given to Zoning Boards of Adjustment and Planning Boards, by the Municipal Land Use Law.
Zoning Board of Adjustment	No	-
Planning Department	Yes	Contracted to J. Caldwell and Associates
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	Roads Department
Construction/Building/Code Enforcement Department	Yes	The Construction Department is tasked with enforcing the State Uniform Construction Code and the issuance of construction permits. The Department consists of a plumbing, building, electrical, and fire inspector, the construction officials, and the secretary to the Construction Official.



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management plans for and responds to any emergency within the Township. It is responsible for coordinating the response of local, County, and State offices during an emergency.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	Surrounding communities
Human Resources Manual – Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	No job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk.
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Harold Pellow Associates
Engineers or professionals trained in building or infrastructure construction practices	Yes	J. Caldwell and Associates
Planners or engineers with an understanding of natural hazards	Yes	Harold Pellow Associates
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	Yes	As per need, Bids for Prof. Services.
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Daniel Kent Inc.
Emergency manager	Yes	Township Emergency Management Coordinator
Grant writers	No	-
<i>Consider the following:</i> Are data and maps from the HMP used to support documentation in grant applications?		
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-





### 19.3.4 Fiscal Capability

Table 19-5 summarizes financial resources available to Sandyston.

Table 19-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 19.3.5 Education and Outreach Capability

Table 19-6 summarizes the education and outreach resources available to Sandyston.

Table 19-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Municipal Clerk
Personnel skilled or trained in website development	Yes	Municipal Clerk
Hazard mitigation information available on your website	Yes	Emergency information is posted
Social media for hazard mitigation education and outreach	Yes	A Facebook page; also share information from the Sheriff's page.
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Utilizes system provided by Sussex County
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Bi-annual newsletters, social media, Township website, community events



### 19.3.6 Community Classifications

Table 19-7 summarizes classifications for community programs available to Sandyston.

Table 19-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	Fire Department – 10	25 plus years ago.
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 19.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 19-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 19-8. Adaptive Capacity

Hazard	Adaptive Capacity – Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate



Hazard	Adaptive Capacity – Strong/Moderate/Weak
Severe Winter Weather	Moderate
Wildfire	Moderate

## 19.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 19-1 is responsible for maintaining this information.

### 19.4.1 NFIP Statistics

Table 19-9 summarizes the NFIP policy and claim statistics for Sandyston.

Table 19-9. Sandyston NFIP Summary of Policy and Claim Statistics

# Policies	5
# Claims (Losses)	5
Total Loss Payments	\$209,805.75
# Repetitive Loss Properties (NFIP definition)	1
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

*Source: FEMA Region II 2024*

### 19.4.2 Flood Vulnerability Summary

Table 19-10 provides a summary of the NFIP program in Sandyston.

Table 19-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Township occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No



NFIP Topic	Comments
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Construction
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, various federal, state, and regional online resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would welcome continuing education and certification training on floodplain management.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Staff and funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	January 27, 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 75 – Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	November 2013
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets the minimum set by FEMA and the State.



NFIP Topic	Comments
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Planning Board considers efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has subdivision and site plan ordinances.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	The Township does not currently participate but would consider joining and would attend a CRS seminar if offered.

## 19.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 19-11 through Table 19-13.

Table 19-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	1	0	0	1
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	2	0	0	2
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 19-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
No identified recent major development or infrastructure were identified by the Township within the past five years.					



\* Only location-specific hazard zones or vulnerabilities identified.

Table 19-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
No known or anticipated major development and infrastructure was indicated by the Township.					

## 19.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Sandyston's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 19.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 19-1 through Figure 19-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Sandyston has significant exposure. The maps show the location of potential new development, where available.



Figure 19-1. Sandyston Flood and Sinkhole Hazard Area Extent and Location Map

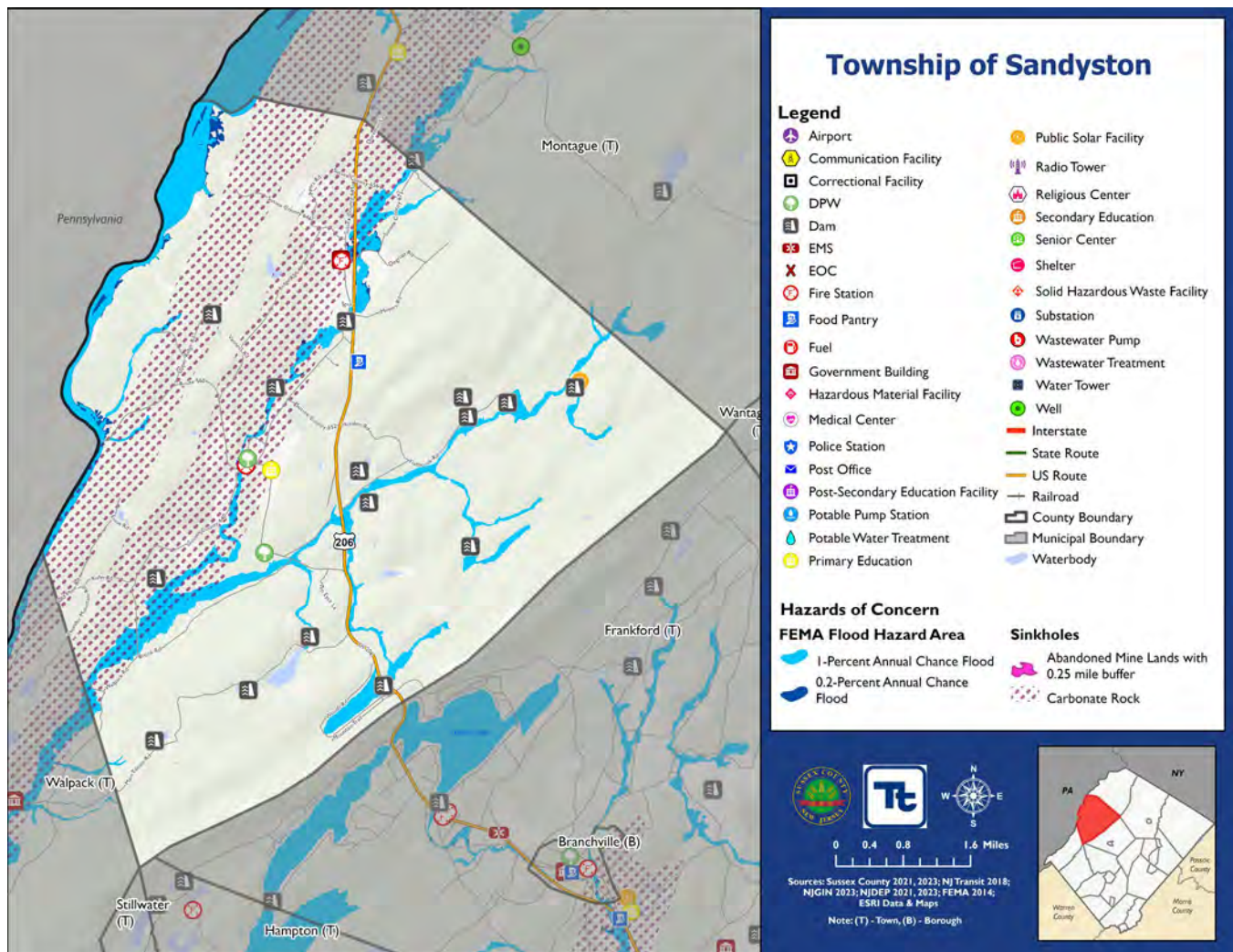


Figure 19-2. Sandyston Hazardous Materials and Wildfire Hazard Area Extent and Location Map

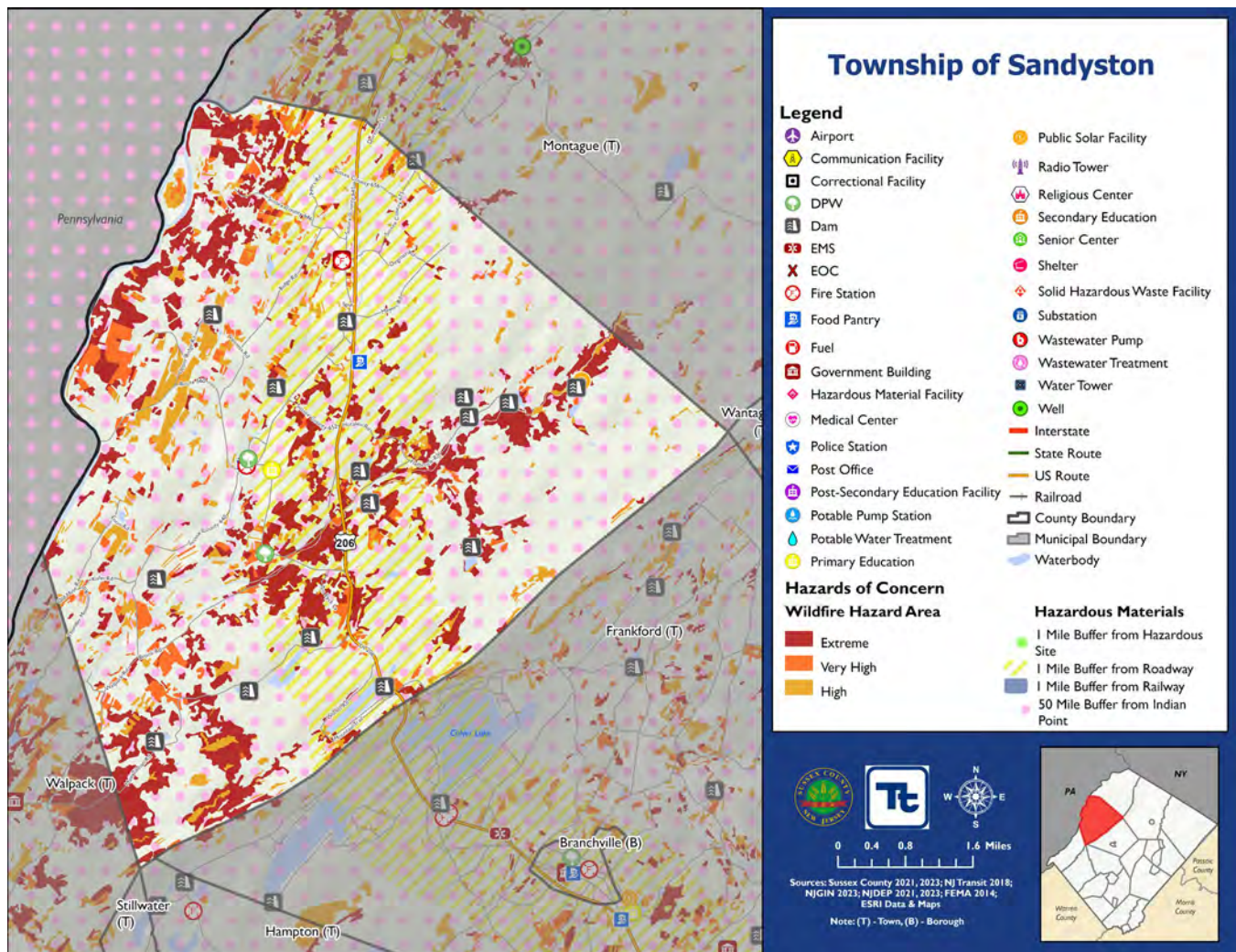
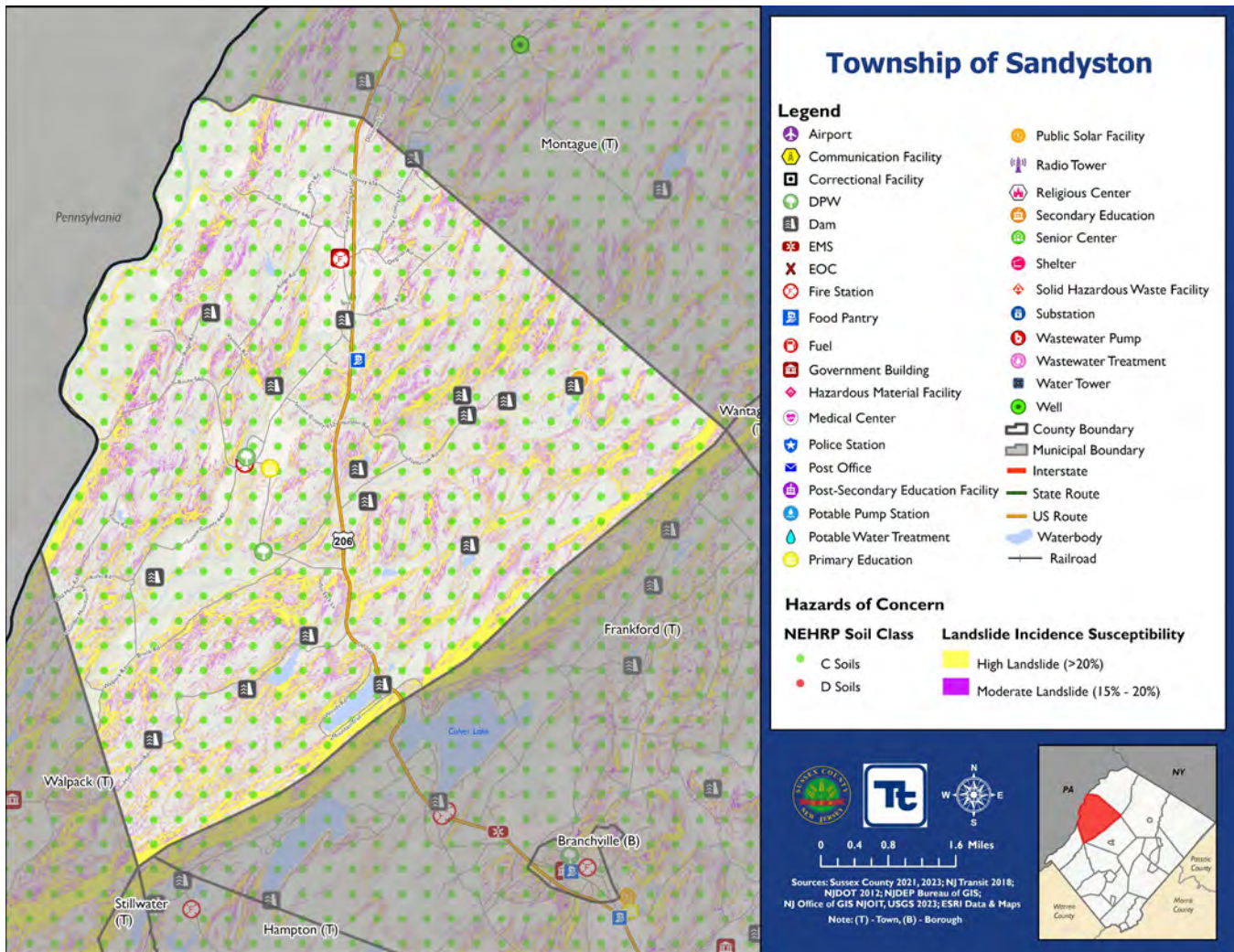




Figure 19-3. Sandyston Landslide and NEHRP Soils Hazard Area Extent and Location Map





## 19.6.2 Hazard Event History

The history of natural and non-natural hazard events in Sandyston is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 19-14 provides details on loss and damage in Sandyston during hazard events since the last hazard mitigation plan update.

Table 19-14. Hazard Event History in Sandyston

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Sandyston
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Township implemented masking and social distancing mandates. Non-emergent personnel were permitted to work from home.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Downed trees and power lines. Public Works officials assisted in the clean-up on Township maintained roadways and properties.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Heavy snowfall and high snow accumulations impacted the Township. No damages or losses occurred to Township property. Public Works officials assisted in the clean-up on Township maintained roadways and properties.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Flash flooding resulted in road closures. Public Works officials assisted in the clean-up on Township maintained roadways and properties.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 19.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Sandyston .



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Sandyston reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the following:

- The Wildfire hazard should be increased from Medium to High due to roughly 70 percent of areas impacted by wildfires are under Federal or State jurisdiction. There has been no known mitigation measures performed by the appropriate government agencies.

Table 19-15 shows Sandyston's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 19-15. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	High

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 19-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.



Table 19-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Harper Dam	Dam	Yes	Yes	2025-SandystonTwp-11, 2025-SandystonTwp-12	-
Kittatinny Lake Dam	Dam	Yes	Yes	2025-SandystonTwp-11, 2025-SandystonTwp-12	-
Lance Mill Dam	Dam	Yes	Yes	2025-SandystonTwp-11, 2025-SandystonTwp-12	-
Sandyston Township Building	Post Office	No	Yes	2025-SandystonTwp-11	-
Skellinger Lake Dam	Dam	Yes	Yes	2025-SandystonTwp-11, 2025-SandystonTwp-12	-
Stony Lake Dam	Dam	Yes	Yes	2025-SandystonTwp-11, 2025-SandystonTwp-12	-

Source: NJGIN 2023; Sussex County 2021, 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Sandyston:

- Robert Rooke Dam

### 19.6.4 Identified Issues

After review of Sandyston's hazard event history, hazard rankings, hazard location, and current capabilities, Sandyston identified the following vulnerabilities within the community:

- Dams in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.
- The Township lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The jurisdiction has identified the community experiences frequently downed trees due to severe storms. The Township does not have a tree maintenance program. Utility companies are responsible for the maintenance of those on or near utility lines. Private homeowners must ensure trees on private property are not threatening power availability/interruption.
- The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Township. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has one repetitive loss property, but other properties may be impacted by flooding as well. Scattered privately-owned homesites are located along the Delaware River. Some of these properties are located in the Special Flood Hazard Area, with development requiring floodproofing.





- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Although the Township has flood exposure, the Township does not participate in the Community Rating System (CRS) program. By participating in the CRS program, the Township can reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management. Township residents which have flood insurance through the NFIP may see a decrease in flood insurance rates.
- Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has multiple critical facilities in the floodplain, including Harper Dam, Kittatinny Lake Dam, Lance Mill Dam, Skellinger Lake Dam, Stony Lake Dam, the Sandyston Township Building.
- The Harper Dam, Kittatinny Lake Dam, Lance Mill Dam, Skellinger Lake Dam, and Stony Lake Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has a high-hazard potential dam, the Robert Rooke Dam, within its jurisdiction. These structures have the potential to impact those living nearby.
- Little Flat Brook crosses Degroat Road just east of the road's intersection with Route 206. The Brook experiences occasional riverine flooding. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- The lack of forest management on federal and private lands has increased fire risk for residents of Sandyston. Many residents reside along the border of forested areas, where a wildfire could directly impact their homes and properties. Overgrown vegetative growth provides fuel to potential fires.
- Lake communities in Sandyston face snow removal issues owing to a lack of suitable land on which snow can be cleared from roads and placed. Snow-covered roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- Sandyston Township has an early warning siren for hazard events. The sirens are located at Fire Stations #1 and #2. Fire Station #1 is located near the Sandyston Township Municipal Building along CR-645 and Fire Station #2 is located in Layton on CR-560/Tuttles Corner-Dingmans Ferry Road. Station #2's early warning siren is broken and is no longer functional, thereby limiting a source of emergency communications for residents in the northern portion of the Township.
- The Sandyston-Walpack School building is not designed to withstand high wind. High wind associated with severe winter weather, severe weather, hurricanes, and nor'easters have the potential to damage the roof, which may cause injury to the individuals inside of the building.
- Sandyston Township is a largely rural and wooded community. Roads in the Township are narrow, and brush fires require a quick response by the Department. Additionally, a large portion of Sandyston is preserved open space associated with the Delaware Water Gap. The high amount of visitation and tourism associated with the recreation facilities magnifies the importance of emergency response from the Township, though it has limited resources to acquire equipment and vehicles.



- Sandyston Township experiences cable outages that impact phone lines during severe storm events. Maintaining these lines of communication is pertinent as reverse notification systems may be tied to landlines and cable provides the population with hazard notifications, warnings, and integral hazard-related information.
- The Dingman's Ferry bridge is the primary access road between the Township and Pennsylvania. The Bridge is privately owned and vulnerable to flooding. Failure of bridges or causeways could result in loss to life and limitations to emergency access.
- The Township had participated in the Firewise program between 2014-2019. The Township seeks to re-enter the Firewise program once it is reintroduced by the State. The Firewise program helps the entire community become more prepared, and ultimately resilient, to the wildfire hazard through connections with local firefighters and state professionals, understanding fire fuel and how to dispose and prevent it, and learning how to protect property from wildfires.
- The Township has not adopted NJDEP's Code Coordinated Ordinance. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- Robert Rooke Dam is a Class I High Hazard Dam that is located on Lake Robert Rooke. The dam is owned by the YMCA of Newark. Failure of the dam could result in inundation of populated areas, forested areas, recreational areas, and local roadways including Flatbrook Road and State Route 206. Although the dam was last inspected in 2024 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 19.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 19.7.1 Past Mitigation Action Status

Table 19-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 19.7.2 Additional Mitigation Efforts

Sandyston did not identify any additional mitigation efforts completed since the last HMP.



Table 19-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Sandyston-001	Sandyston Early Warning Systems	Dam Failure, Disease Outbreak, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Invasive Species, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	OEM	<b>Problem:</b> Sandyston Township has an early warning siren for hazard events. The sirens are located at Fire Stations #1 and #2. Fire Station #1 is located near the Sandyston Township Municipal Building along CR-645 and Fire Station #2 is located in Layton on CR-560/Tuttles Corner-Dingmans Ferry Road. Station #2's early warning siren is broken and is no longer functional, thereby limiting a source of emergency communications for residents in the northern portion of the Township.  <b>Solution:</b> The Township proposes to replace and augment its early warning capabilities at the Fire Station with a siren with enhanced reach and functionality.	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable
2021-Sandyston-002	Sandyston-Walpack School Retrofits	Severe Weather; Severe Winter Weather	Sandyston-Walpack Board of Education	<b>Problem:</b> The Sandyston-Walpack School building is not protected from severe weather events.  <b>Solution:</b> The Township and Board of Education propose to retrofit the school building to withstand hazard events such as snowfall.	1. No Progress 2. The Township was not able to secure funding for this project	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Sandyston-003	Brush Truck and Utility Truck Acquisition	Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	Fire Department	<p><b>Problem:</b> Sandyston Township is a largely rural and wooded community. Roads in the Township are narrow, and brush fires require a quick response by the Department. Additionally, a large portion of Sandyston is preserved open space associated with the Delaware Water Gap. The high amount of visitation and tourism associated with the recreation facilities magnifies the importance of emergency response from the Township, though it has limited resources to acquire equipment and vehicles.</p> <p><b>Solution:</b> The Township proposes to purchase a brush truck and utility truck to augment the Township's response to fire and rescue incidents. The brush truck is the first line of defense in a brush fire and can traverse rough terrain. The utility truck will tow the Township's utility terrain vehicle in the case of emergency. The acquisition would enable enhanced response from the Township's fire department and greater capabilities during all types of hazard events. The Utility Truck will tow the UTV to emergency locations where traditional towing vehicles cannot navigate due to road size or terrain limitations.</p>	1. No Progress 2. The Township purchased a 2023 GMC Utility truck in 2023.	1. Include 2. Remove utility truck from action. 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Sandyston-004	Phone Service Retention	Dam Failure, Disease Outbreak, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Invasive Species, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	Century Link; Optimum; PUC	<b>Problem:</b> Sandyston Township experiences cable outages that impact phone lines during severe storm events.  <b>Solution:</b> The Township proposes to work with the PUC and FCC to enact regulations requiring phone providers to maintain phone service during loss of power.	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable
2021-Sandyston-005	Delaware River Bridge Retrofit	Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Nor'easter, Severe Weather, Severe Winter Weather	NJDEP; Sussex County;	<b>Problem:</b> The Dingman's Ferry bridge is the primary access road between the Township and Pennsylvania. The Bridge is privately owned and vulnerable to flooding.  <b>Solution:</b> The Township proposes to protect the roadway crossing the Delaware River from damages and debris during hazard events. The Township will work with the bridge's owners, the County, and NJDEP to protect the bridge from debris during a flood.	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Sandyston-006	Disaster Debris Management Plan	Dam Failure, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	Private owners; Township Administration	<b>Problem:</b> The Township lacks a Disaster Debris Management Plan. <b>Solution:</b> The Township will develop and adopt a Disaster Debris Management Plan. The Plan will include any necessary mutual aid discussions to supplement the Township's capabilities.	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable
2021-Sandyston-007	Reverse 911	Dam Failure, Disease Outbreak, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Invasive Species, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	Township OEM, Administration	<b>Problem:</b> The Township lacks a reverse 9-1-1 notification system to warn residents about hazard events. <b>Solution:</b> The Township proposes to acquire and implement a reverse 9-1-1 notification system to inform all residents of hazard events and make the Township safer.	1. Discontinue 2. The Township is able to utilize the County's reverse messaging system.	1. Discontinue 2. Not applicable 3. The Township is able to utilize the County's reverse messaging system.





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Sandyston-008	Repetitive Loss Properties	Flood	Township OEM, Administration	<p><b>Problem:</b> Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 1 repetitive loss property, but other properties may be impacted by flooding as well.</p> <p><b>Solution:</b> Conduct outreach to 30 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information, and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable
2021-Sandyston-009	Firewise Participation	Wildfire	NFIP Floodplain Administrator, supported by homeowners	<p><b>Problem:</b> The Township had participated in the Firewise program between 2014-2019, and the plan has now expired. The Township seeks to re-enter the Firewise program.</p> <p><b>Solution:</b> The Township proposes to undertake the documentation and process necessary to re-enter the Firewise program and undertake associated mitigation activities.</p>	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



### 19.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Sandyston participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Sandyston would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 19-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 19-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 19-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X	X	X		X	X
Disease Outbreak	X			X	X		X			
Drought	X			X	X		X			
Earthquake	X			X	X		X		X	X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X	X		X	X	X	X		X	X
Hazardous Materials	X	X		X	X	X	X		X	X
Hurricane	X	X	X	X	X	X	X	X	X	X
Infestation	X			X	X		X			
Nor'easter	X	X	X	X	X	X	X	X	X	X
Severe Weather	X	X	X	X	X	X	X	X	X	X
Severe Winter Weather	X	X	X	X	X	X	X	X	X	X
Wildfire	X	X	X	X	X	X	X	X	X	X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 19-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Sandyston-01	Dam Repair	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-Sandyston-02	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-Sandyston-03	Tree Maintenance	0	1	1	1	1	1	1	1	1	1	0	1	0	0	10	Medium
2025-Sandyston-04	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-Sandyston-05	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-Sandyston-06	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-Sandyston-07	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-Sandyston-08	Community Rating System Program Participation	0	1	1	1	1	1	0	0	1	0	1	1	0	1	9	Medium
2025-Sandyston-09	Critical Facilities in the Floodplain	1	1	1	1	1	0	1	1	1	0	1	1	1	0	11	High
2025-Sandyston-10	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-Sandyston-11	Little Flat Brook Flood Mitigation	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-Sandyston-12	Collaborative Fire Management Practices	1	1	1	1	0	0	1	1	1	0	1	1	0	0	9	Medium
2025-Sandyston-13	Severe Winter Weather Preparations	1	1	1	1	1	1	1	1	1	1	1	1	0	0	12	High
2025-Sandyston-14	Early Warning Systems	1	1	1	1	1	0	0	1	1	1	1	1	1	0	11	High
2025-Sandyston-15	Sandyston-Walpack School Retrofits	0	1	1	1	0	0	0	1	0	1	1	1	1	0	8	Medium
2025-Sandyston-16	Brush Truck Acquisition	1	1	1	1	1	0	1	1	1	0	1	1	1	0	11	High
2025-Sandyston-17	Phone Service Retention	1	0	1	1	0	0	0	1	0	1	0	1	1	0	7	Medium



Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-Sandyston-18	Delaware River Bridge Retrofit	0	1	1	1	0	0	1	0	1	1	1	0	1	0	8	Medium
2025-Sandyston-19	Firewise Program Participation	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-Sandyston-20	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-Sandyston-21	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-Sandyston-22	Robert Rooke Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

*Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).*



## Action 2025-SandystonTwp-01. Dam Repair

<b>Lead Agency:</b>	Engineer								
<b>Supporting Agencies:</b>	Dam Manager, NJDEP Bureau of Dam Safety, County Engineer								
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials</td><td><input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire</td></tr></table>			<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials	<input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire				
<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials	<input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire								
<b>Description of the Problem:</b>	<p>The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:</p> <ul style="list-style-type: none"><li>• Camp Niwauna Dam (poor)</li><li>• Skellinger Lake Dam (poor)</li></ul> <p>Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.</p>								
<b>Description of the Solution:</b>	<p>The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.</p>								
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected								
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget								
<b>Implementation Timeline:</b>	Within 5 years								
<b>Goals Met:</b>	1, 2, 3								
<b>Benefits:</b>	<p>Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.</p>								
<b>Impact on Socially Vulnerable Populations:</b>	<p>The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.</p>								
<b>Impact on Future Development:</b>	<p>Future development downstream of dams will also be protected from dam failure.</p>								
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.</p>								
<b>Impact on Capabilities:</b>	Not applicable								
<b>Climate Change Considerations:</b>	<p>Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.</p>								
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)								
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)								
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input checked="" type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)								
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)								
<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low						
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Risk of dam failure remains or increases over time</td></tr></table>	Action	Evaluation	No Action	Risk of dam failure remains or increases over time				
Action	Evaluation								
No Action	Risk of dam failure remains or increases over time								





	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access
	Remove all dams	Without proper analysis, dam removal may increase flooding risk



## Action 2025-SandystonTwp-02. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>			Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available						
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-SandystonTwp-03. Tree Maintenance

<b>Lead Agency:</b>	Public Works		
<b>Supporting Agencies:</b>	Utility Companies, Property Owners		
<b>Hazard(s) of Concern:</b>	<div> <input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire </div>		
<b>Description of the Problem:</b>	The jurisdiction has identified the community experiences frequently downed trees due to severe storms. The Township does not have a tree maintenance program. Utility companies are responsible for the maintenance of those on or near utility lines. Private homeowners must ensure trees on private property are not threatening power availability/interruption.		
<b>Description of the Solution:</b>	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption in conjunction with property owners and utility companies.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	4 years		
<b>Goals Met:</b>	1, 2, 5, 7		
<b>Benefits:</b>	This action will result in the reduction of risk surrounding power outages by minimizing potential impacts from trees on utility lines.		
<b>Impact on Socially Vulnerable Populations:</b>	Some socially vulnerable population rely on power utilities for everyday care. If power outages are caused by a lack of tree maintenance, lives could potentially be at risk.		
<b>Impact on Future Development:</b>	This action assists in the protection of future development from impacts caused by tree collapses or branch falls as a result of severe weather, severe winter weather, hurricanes, and nor'easters.		
<b>Impact on Critical Facilities/Lifelines:</b>	Utility lines provide power to residencies, private businesses, government entities, and various providers. Not maintaining trees, tree limbs, or tree branches may impact the availability of power during severe weather and severe winter weather events.		
<b>Impact on Capabilities:</b>	The creation of a tree maintenance program would be a new capability for the Township.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to trees or tree limbs/branches falling or impacting utility lines and property.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input checked="" type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input checked="" type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Municipal-owned trees will be maintained
	Do not contact utility companies		Trees along utility lines may impact power during severe weather and severe winter weather events
	Do not contact property owners		Trees on private residencies may impact power during severe weather and severe winter weather events



## Action 2025-SandystonTwp-04. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Township. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Township events, the Township newsletters, social media, the Township website, and having the materials on display for the public at Township libraries and offices. Consider hiring staff to work directly with socially vulnerable populations.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Township. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township will become educated on hazards risks. The Township will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-SandystonTwp-05. Repetitive Loss Properties

<b>Lead Agency:</b>	Floodplain Administrator										
<b>Supporting Agencies:</b>	Sussex County										
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>										
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has one repetitive loss property, but other properties may be impacted by flooding as well. Scattered privately-owned homesites are located along the Delaware River. Some of these properties are located in the Special Flood Hazard Area, with development requiring floodproofing.										
<b>Description of the Solution:</b>	The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.										
<b>Estimated Cost:</b>	Medium										
<b>Potential Funding Sources:</b>	FEMA FMA, FMA SWIFT, Municipal Budget, County Budget, Property Owners										
<b>Implementation Timeline:</b>	3 years										
<b>Goals Met:</b>	2, 3										
<b>Benefits:</b>	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.										
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.										
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.										
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.										
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.										
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>										
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR)</div> <div><input checked="" type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Construct flood walls/barriers around vulnerable areas</td><td>Costly and can divert floodwaters to other areas</td></tr><tr><td>Deployable flood barriers for vulnerable areas</td><td>Requires a great deal of work to implement prior to each event</td></tr></table>	Action	Evaluation	No action	Current problem continues	Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas	Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event		
Action	Evaluation										
No action	Current problem continues										
Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas										
Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event										



## Action 2025-SandystonTwp-06. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Planning Board, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
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<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.																
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.																
<b>Estimated Cost:</b>	Staff time, Low																
<b>Potential Funding Sources:</b>	Township Budget																
<b>Implementation Timeline:</b>	Within 2 years																
<b>Goals Met:</b>	1, 2, 5																
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.																
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.																
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.																
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.																
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Only share opportunities when notified of grant funding</td><td>May not be enough time to garner interest or write application</td></tr><tr><td>Wait for information from the State on flood-damaged properties</td><td>May be a delay in notice</td></tr></table>	Action	Evaluation	No action	Current problem remains	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	Wait for information from the State on flood-damaged properties	May be a delay in notice								
Action	Evaluation																
No action	Current problem remains																
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application																
Wait for information from the State on flood-damaged properties	May be a delay in notice																





## Action 2025-SandystonTwp-07. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Engineering, Building Department, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-SandystonTwp-08. Community Rating System Program Participation

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Township Administration, Emergency Management		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Although the Township has flood exposure, the Township does not participate in the Community Rating System (CRS) program. By participating in the CRS program, the Township can reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management. Township residents which have flood insurance through the NFIP may see a decrease in flood insurance rates.		
<b>Description of the Solution:</b>	The Township will evaluate the benefits and costs of participating in CRS program. If feasible, the Township will join the program and begin implementing standards that exceed NFIP requirements.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	The participation in the CRS benefits communities by offering discounted rates for flood insurance premiums, which addresses the three goals of the program: reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program, and foster comprehensive floodplain management.		
<b>Impact on Socially Vulnerable Populations:</b>	The participation in the Community Rating System (CRS) benefits communities by offering discounted rates for flood insurance premiums, which may be more affordable for some socially vulnerable populations.		
<b>Impact on Future Development:</b>	Future development would need to adhere to any increased standards established as part of joining the CRS program such as increased freeboard and elevation certificate requirements.		
<b>Impact on Critical Facilities/Lifelines:</b>	Not applicable		
<b>Impact on Capabilities:</b>	This action would enhance the Township's floodplain management capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These changes are likely to increase flood risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	-	
	Adopt aspects of the CRS program into the floodplain management program	Increased floodplain management capabilities but no reduction in flood insurance premiums	
	Abandon any floodplain management practices not required by NFIP	Reduction in floodplain management capabilities and increase in risk.	



## Action 2025-SandystonTwp-09. Critical Facilities in the Floodplain

<b>Lead Agency:</b>	Facility Managers		
<b>Supporting Agencies:</b>	Emergency Management, Floodplain Administrator		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has multiple critical facilities in the floodplain, including Harper Dam, Kittatinny Lake Dam, Lance Mill Dam, Skellinger Lake Dam, Stony Lake Dam, the Sandyston Township Building.		
<b>Description of the Solution:</b>	Coordinate with the facility managers at the Sandyston Township Building, Harper Dam, Kittatinny Lake Dam, Lance Mill Dam, Skellinger Lake Dam, and Stony Lake Dam in the Township to support the mitigation of vulnerable structures via retrofit (e.g., elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Township Budget, Facilities		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action will remove or reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders.		
<b>Impact on Socially Vulnerable Populations:</b>	Retrofitting or relocating the identified structures will benefit socially vulnerable populations, as individuals within these populations rely on resources from various government facilities, transportation facilities, and medical and senior care facilities.		
<b>Impact on Future Development:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Critical Facilities/Lifelines:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Floodproof existing structures	May not necessarily reduce risk	
	Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function	



## Action 2025-SandystonTwp-10. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM		
<b>Supporting Agencies:</b>	NJDEP, Dam Owners		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Harper Dam, Kittatinny Lake Dam, Lance Mill Dam, Skellinger Lake Dam, and Stony Lake Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has a high-hazard potential dam, the Robert Rooke Dam, within its jurisdiction. These structures have the potential to impact those living nearby.		
<b>Description of the Solution:</b>	The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5, 7		
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.		
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.		
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Township will be unaware of any safety concerns for the dam or its condition
	Utilize information from NJDEP		Owners may not be required to submit a safety plan to the State
	Utilize information from the National Inventory of Dams		Not all dams are listed on the inventory



## Action 2025-SandystonTwp-11. Little Flat Brook Flood Mitigation

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Township Administration, Emergency Management		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Little Flat Brook crosses Degroat Road just east of the road's intersection with Route 206. The Brook experiences occasional riverine flooding. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	Work with partnering agencies to identify feasible mitigation measures to provide relief from flooding impacts caused by the Little Flat Brook. Cost effective measures will be implemented.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Township from the Little Flat Brook.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding from the Little Flat Brook. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding from the Little Flat Brook, permitting first responders to traverse the roadways safely.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Raise banks of brook to increase storage capacity	Cost prohibitive	
	Construct floodwall along creek	Cost prohibitive	



## Action 2025-SandystonTwp-12. Collaborative Fire Management Practices

<b>Lead Agency:</b>	Fire Department		
<b>Supporting Agencies:</b>	Sussex County, New Jersey Forest Fire Service, NJDEP, Private Land Owners		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Lack of forest management of federal, state, and private lands has increased fire risk for residents of Sandyston. Many residents reside along the border of forested areas, where a wildfire could directly impact their homes and properties. Overgrown vegetative growth provides fuel to potential fires.		
<b>Description of the Solution:</b>	The Fire Department will work with the County, NJFFS, and NJDEP to develop management plans for maintenance of vegetative growth along key access roads. Private land owners will be encouraged to perform their own vegetative maintenance.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	Land Owners, Municipal Budget, County Budget, State Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action will create clearer access to key access roads to federal, state, and private lands. Regular maintenance for these access roads will remove fire fuel and ensure roads are easily visible and drivable.		
<b>Impact on Socially Vulnerable Populations:</b>	Populations near forested areas will be better protected from the wildfire hazard.		
<b>Impact on Future Development:</b>	Future development near forested areas will be better protected from the wildfire hazard.		
<b>Impact on Critical Facilities/Lifelines:</b>	While not official evacuation routes, access roads often provide the only ingress and egress for emergency response. This action will maintain important pathways for emergency response.		
<b>Impact on Capabilities:</b>	This action will protect emergency response capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events, which may cause additional problems with erosion.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input checked="" type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input checked="" type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	State agencies maintain only	Maintenance may not occur as frequently as needed	
	Township maintains only	Maintenance may not occur as frequently as needed	





## Action 2025-SandystonTwp-13. Severe Winter Weather Preparations

<b>Lead Agency:</b>	Public Works		
<b>Supporting Agencies:</b>	-		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Lake communities in Sandyston face snow removal issues owing to a lack of suitable land on which snow can be cleared from roads and placed. Snow-covered roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	Prior to each anticipated accumulative snowfall, Public Works will brine and salt the roads surrounding the Sandyston lake communities. Depending on snowfall rates, a schedule to re-salt the roadways will be developed.		
<b>Estimated Cost:</b>	Low, Staff Time		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 1 year		
<b>Goals Met:</b>	1, 2, 7		
<b>Benefits:</b>	This action will protect the transportation lifeline by keeping roadways open and clear for emergency response and residential use.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by snow-covered roads in the Sandyston lake communities.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be impacted by snow-covered roads.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.		
<b>Impact on Capabilities:</b>	This action will expand the Township's winter weather response and preparation capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the severity, but decrease the frequency, of severe weather events such as nor'easters and severe winter weather. This action takes in account the chance of heavier snowfalls.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		Current problem continues
	Property owners hire outside contractors		Cost prohibitive for owners
	Expand roadways		Cost prohibitive



## Action 2025-SandystonTwp-14. Early Warning Systems

<b>Lead Agency:</b>	Fire Department		
<b>Supporting Agencies:</b>	Emergency Management, Township Administration		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials         </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire         </div> </div>		
<b>Description of the Problem:</b>	Sandyston Township has an early warning siren for hazard events. The sirens are located at Fire Stations #1 and #2. Fire Station #1 is located near the Sandyston Township Municipal Building along CR-645 and Fire Station #2 is located in Layton on CR-560/Tuttles Corner-Dingmans Ferry Road. Station #2's early warning siren is broken and is no longer functional, thereby limiting a source of emergency communications for residents in the northern portion of the Township.		
<b>Description of the Solution:</b>	The Township proposes to replace and augment its early warning capabilities at the Fire Station with a siren with enhanced reach and functionality.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	HMGP, BRIC, AFG, Township Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	1, 3, 5, 7		
<b>Benefits:</b>	This action will increase warning times within the Township and alert constituents to an impending hazard.		
<b>Impact on Socially Vulnerable Populations:</b>	Populations living near Station #2 will have the early warning system available to alert them to potential impending hazards.		
<b>Impact on Future Development:</b>	Future development within range of Station #2 will be supported by this action.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action supports strengthens the safety and security lifeline by providing another means of informing the public of impending hazards; this supports the mission to protect life, property, and the environment.		
<b>Impact on Capabilities:</b>	This action strengthens the Fire Department's, and Township's early warning capabilities.		
<b>Climate Change Considerations:</b>			
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Public Information (PI) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		Current problem remains
	Alternate communications		Cost prohibitive
	Rely on reverse messaging systems		Not all residents may be registered



## Action 2025-SandystonTwp-15. Sandyston-Walpack School Retrofits

<b>Lead Agency:</b>	Sandyston-Walpack Board of Education		
<b>Supporting Agencies:</b>	Emergency Management, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Sandyston-Walpack School building is not designed to withstand high wind. High wind associated with severe winter weather, severe weather, hurricanes, and nor'easters have the potential to damage the roof, which may cause injury to the individuals inside of the building.		
<b>Description of the Solution:</b>	The Township and Board of Education propose to retrofit the school building to withstand heavy wind events and occurrences of heavy snowfall.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Township Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 6		
<b>Benefits:</b>	This action will protect the Sandyston-Walpack School from wind damage associated with severe weather, severe winter weather, hurricanes, nor'easters, and any debris which the winds may elevate. Furthermore, this action will protect the School from roof collapse from snow loads associated with severe winter weather and nor'easters.		
<b>Impact on Socially Vulnerable Populations:</b>	The Sandyston-Walpack School may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect the Sandyston-Walpack School from potential wind damages and roof collapse caused by debris and snow accumulations, respectively.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as hurricanes, nor'easters, winter storms, and winds. This action accounts for a likely increase in flying debris which may damage windows and snowfall which may impact the roofing of the School..		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem continues
	Build new structures		Costly, unnecessary
	Replace roof and windows without referencing changes in building standards		May result in same issue



## Action 2025-SandystonTwp-16. Brush Truck Acquisition

<b>Lead Agency:</b>	Fire Department		
<b>Supporting Agencies:</b>	-		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Sandyston Township is a largely rural and wooded community. Roads in the Township are narrow, and brush fires require a quick response by the Fire Department. Additionally, a large portion of Sandyston is preserved open space associated with the Delaware Water Gap. The high amount of visitation and tourism associated with the recreation facilities magnifies the importance of emergency response from the Township, though it has limited resources to acquire equipment and vehicles.		
<b>Description of the Solution:</b>	The Township proposes to purchase a brush truck to augment the Township's response to fire and rescue incidents. The brush truck is the first line of defense in a brush fire and can traverse rough terrain. The acquisition would enable enhanced response from the Township's fire department and greater capabilities during all types of hazard events.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	Township Budget, HSGP, FTA Emergency Relief Program, AFG		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 5, 6		
<b>Benefits:</b>	This action will strengthen the response capabilities of the Sandyston Fire Department.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will provide another level of protection for all populations within the Township from the wildfire hazard.		
<b>Impact on Future Development:</b>	This action will permit the fire department to provide a more robust response to fires which may disrupt areas selected for future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will provide the safety and security lifeline with additional equipment to support its mission of protecting life, property, and the environment.		
<b>Impact on Capabilities:</b>	This action will strengthen the capabilities within the safety and security lifeline within the Township.		
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		Current problem remains
	Rent the equipment		Costly, may not be available when needed
	Rely on MOUs		Resources may not be available



## Action 2025-SandystonTwp-17. Phone Service Retention

<b>Lead Agency:</b>	Service Providers		
<b>Supporting Agencies:</b>	Township Administration		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	Sandyston Township experiences cable outages that impact phone lines during severe storm events. Maintaining these lines of communication is pertinent as reverse notification systems may be tied to landlines and cable provides the population with hazard notifications, warnings, and integral hazard-related information.		
<b>Description of the Solution:</b>	The Township proposes to work with the PUC and FCC to enact regulations requiring phone providers to maintain phone service during loss of power.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	Service Providers		
<b>Implementation Timeline:</b>	5+ years		
<b>Goals Met:</b>	1, 5, 6		
<b>Benefits:</b>	Township emergency responders will have connection across the entire Township to ensure their services are accessible by all residents and business owners.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may not have the financial means to own a cellular device to contact emergency responders.		
<b>Impact on Future Development:</b>	Phone service would be available at future development locations.		
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities may benefit from this action because it allows them to have increased communication and connections to other critical facilities and emergency responders.		
<b>Impact on Capabilities:</b>	This increased the Township's capability to handle all emergencies and hazards.		
<b>Climate Change Considerations:</b>	Climate change is leading to an increase in severity and frequency in severe weather.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Township buys cellular signal extender for all first responders	Cost prohibitive	
	Township contracts with service provider for Cell on Wheels (COW)	Cost prohibitive, unknown availability	



## Action 2025-SandystonTwp-18. Delaware River Bridge Retrofit

<b>Lead Agency:</b>	Township Administration																
<b>Supporting Agencies:</b>	Public Works, Emergency Management, Bridge Owner(s), NJDEP, Sussex County																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Dingman's Ferry bridge is the primary access road between the Township and Pennsylvania. The Bridge is privately owned and vulnerable to flooding. Failure of bridges or causeways could result in loss to life and limitations to emergency access.																
<b>Description of the Solution:</b>	The Township proposes to protect the roadway crossing the Delaware River from damages and debris during hazard events. The Township will work with the bridge's owners, the County, and NJDEP to protect the bridge from debris.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	BRIC, HMGP, NJDOT, Township Budget, Bridge Owner, Sussex County																
<b>Implementation Timeline:</b>	5+ years																
<b>Goals Met:</b>	2, 5																
<b>Benefits:</b>	This action ensures infrastructure will be protected from future hazard damages and that at least a single transportation route remains accessible to the community.																
<b>Impact on Socially Vulnerable Populations:</b>	This action will benefit socially vulnerable populations by ensuring routes are available for travel, should an evacuation occur or if emergency medical assistance is required.																
<b>Impact on Future Development:</b>	This action will ensure transportation routes are available to future developments during periods of heavy rainfall, which would otherwise cause roadway flooding.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action ensures transportation routes remain open and accessible to the public for daily use and evacuation needs and provides a point of access for first responders into communities that may have faced damage from a hazard event on either side of the bridge.																
<b>Impact on Capabilities:</b>	Increases community resiliency to flooding events in vulnerable areas that would normally be vulnerable to prolonged isolation after high-water events.																
<b>Climate Change Considerations:</b>	Ensure the bridge structure is impervious to erosion at its base due to rising water levels.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input checked="" type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Bridge abandonment/reconstruction</td><td>Not feasible</td></tr><tr><td>Bridge retrofit</td><td>Most cost effective</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Bridge abandonment/reconstruction	Not feasible	Bridge retrofit	Most cost effective								
Action	Evaluation																
No Action	Current problem remains																
Bridge abandonment/reconstruction	Not feasible																
Bridge retrofit	Most cost effective																





## Action 2025-SandystonTwp-19. Firewise Program Participation

<b>Lead Agency:</b>	Fire Department		
<b>Supporting Agencies:</b>	Township Administration, NJFFS		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township had participated in the Firewise program between 2014-2019. The Township seeks to re-enter the Firewise program once it is reintroduced by the State. The Firewise program helps the entire community become more prepared, and ultimately resilient, to the wildfire hazard through connections with local firefighters and state professionals, understanding fire fuel and how to dispose and prevent it, and learning how to protect property from wildfires.		
<b>Description of the Solution:</b>	The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up town hall meetings.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	1, 2, 3, 4, 5		
<b>Benefits:</b>	The national Firewise USA recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township may be located within very high and high fuel risk areas for wildfires. Participation in the Firewise Program will assist in the Township's efforts to educate populations on how to increase the ignition resistance of their home and property.		
<b>Impact on Future Development:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made. This assessment may identify areas which the Township would like to restrict future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made, which could include relocating various critical facilities or lifelines.		
<b>Impact on Capabilities:</b>	This action will increase wildfire risk reduction and response capabilities for the Township.		
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	The Township does not participate in the Firewise Program	



	Complete half of the program requirements	The Township would not be eligible to participate in the Firewise Program
	Participate in the program, but do not utilize resources	The Township would miss opportunities to strengthen communication and safety skills



## Action 2025-SandystonTwp-20. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Construction Official, Building Department, Township Administration, NFIP State Coordinator, FEMA Regional Office																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Township's ordinance requires update.																
<b>Description of the Solution:</b>	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5,7																
<b>Benefits:</b>	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.																
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.																
<b>Impact on Capabilities:</b>	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.																
<b>Climate Change Considerations:</b>	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem exists</td></tr><tr><td>Modify existing flood damage prevention ordinance</td><td>Time intensive</td></tr></table>	Action	Evaluation	No Action	Current problem exists	Modify existing flood damage prevention ordinance	Time intensive										
Action	Evaluation																
No Action	Current problem exists																
Modify existing flood damage prevention ordinance	Time intensive																



	Leave NFIP	Residents lose flood insurance coverage
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## Action 2025-SandystonTwp-21. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure         <input type="checkbox"/> Disease Outbreak         <input type="checkbox"/> Drought         <input checked="" type="checkbox"/> Earthquake         <input checked="" type="checkbox"/> Flood         <input checked="" type="checkbox"/> Geological Hazards         <input checked="" type="checkbox"/> Hazardous Materials       </div> <div> <input checked="" type="checkbox"/> Hurricane         <input checked="" type="checkbox"/> Infestation         <input checked="" type="checkbox"/> Nor'easter         <input checked="" type="checkbox"/> Severe Weather         <input checked="" type="checkbox"/> Severe Winter Weather         <input checked="" type="checkbox"/> Wildfire       </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)         <input type="checkbox"/> Structure and Infrastructure Project (SIP)       </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)         <input type="checkbox"/> Education and Awareness Programs (EAP)       </div>		
<b>CRS Category</b>	<div> <input checked="" type="checkbox"/> Preventative Measures (PR)         <input type="checkbox"/> Property Protection (PP)         <input type="checkbox"/> Public Information (PI)       </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)         <input type="checkbox"/> Structural Flood Control Projects (SP)         <input checked="" type="checkbox"/> Emergency Services (ES)       </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements





## Action 2025-SandystonTwp-22. Robert Rooke Dam Rehab

<b>Lead Agency:</b>	YMCA of Newark																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Robert Rooke Dam is a Class I High Hazard Dam that is located on Lake Robert Rooke. The dam is owned by the YMCA of Newark. Failure of the dam could result in inundation of populated areas, forested areas, recreational areas, and local roadways including Flatbrook Road and State Route 206. Although the dam was last inspected in 2024 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the YMCA of Newark to complete an engineering study of Robert Rooke Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the YMCA of Newark will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Lake Robert Rooke as an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Robert Rooke as an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Robert Rooke as an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## 20. TOWNSHIP OF SPARTA

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Sparta with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Sparta, describes who participated in the planning process, assesses Sparta's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 20.1 HAZARD MITIGATION PLANNING TEAM

The Township of Sparta identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 20-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 20-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Jeffrey McCarrick, EMC/Sparta PD Address: 65 Main Street, Sparta, NJ 07871 Phone Number: (973) 729-6121 Email: jmccarrick@spartapd.org	Name/Title: Thomas McIntyre, Deputy EMC Address: 65 Main Street, Sparta, NJ 07871 Phone Number: (973) 726-4000 Email: tmcintyre@spartapd.org
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Cory Stoner, Township Engineer Address: 65 Main Street, Sparta, NJ 07871 Phone Number: (973) 729-9888 Email: Engineering@spartanj.org	
<b>Additional Contributors</b>	
Name/Title: Jeffrey McCarrick, EMC/Sparta PD Method of Participation: Reviewed draft annex; provided key information for annex development; reviewed and approved final draft annex.	
Name/Title: Thomas McIntyre, Deputy EMC Method of Participation: Provided key information for annex development; reviewed and approved final draft annex.	
Name/Title: Cory Stoner, Township Engineer Method of Participation: Reviewed draft annex; provided key information for annex development; reviewed and approved final draft annex.	
Name/Title: Dorrie Fox, Planning and Zoning Method of Participation: Reviewed draft annex; provided key information for annex development; reviewed and approved final draft annex.	



Primary Point of Contact	Alternate Point of Contact
Name/Title: Joseph Straway, Public Works Director Method of Participation: Reviewed draft annex; provided key information for annex development; reviewed and approved final draft annex.	
Name/Title: James Zepp, Interim Township Manager Method of Participation: Reviewed draft annex; provided key information for annex development; reviewed and approved final draft annex.	
Name/Title: Andrew Coccio, Code Enforcement Method of Participation: Provided key information for annex development.	
Name/Title: Roxanne Landy, Municipal Clerk Method of Participation: Reviewed draft annex; provided key information for annex development; reviewed and approved final draft annex.	
Name/Title: Mike Wallace, Construction Official Method of Participation: Reviewed draft annex; provided key information for annex development; reviewed and approved final draft annex.	

## 20.2 COMMUNITY PROFILE

Sparta Township is located in southwestern Sussex County and has a total area of 38.9 square miles. The Township is bordered to the north by Lafayette and Hardyston Townships, to the south by Byram Township and Hopatcong Borough, to the east by Morris County and to the west by Andover and Lafayette Townships. Streams that flow through Sparta Township include Walkkill River and its tributaries, Russia Brook tributaries, Sparta Junction Brook, Wildcat Branch, Sparta Glen Brook, Tar Hill Brook tributaries, and Lubbers Run tributaries. Lake Mohawk is a large lake located in the southwest corner of the Township. Other lakes and ponds are located throughout the Township as well. The following unincorporated communities are located within the Township: Ackerson, Woodruffs Gap, Houses Corner, Sparta Junction, Sussex Mills, Upper Mohawk, and Lake Mohawk.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 17.8-percent of the population is 5 years of age or younger, 10.3-percent is 65 years of age or older, 7-percent is non-English speaking, 10.3-percent is below the poverty threshold, and 9.9-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Township of Sparta, 16-percent of households earn less than the basic cost of living and are considered socially vulnerable.

## 20.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Sparta performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities



- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Sparta to identify opportunities for integrating mitigation concepts into ongoing Township procedures.

### 20.3.1 Planning and Regulatory Capability and Integration

Table 20-2 summarizes the planning and regulatory tools that are available to Sparta.

Table 20-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	Chapter 12: Building and Housing	Local	Construction Official
How has or will this be integrated with the HMP and how does this reduce risk? <i>The State Uniform Construction Code, building subcode, is hereby adopted and incorporated as fully as if set forth at length herein. The provisions shall be controlling in the construction, alteration, renovation, rehabilitation, maintenance, occupancy, and use of all buildings and structures therein contained within the corporate limits of the Township. The Construction Official is the chief administrator of the enforcing agency.</i>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 18: Comprehensive Land Management Code	Local	Zoning and Planning Boards
How has or will this be integrated with the HMP and how does this reduce risk? <i>Part of the Code objectives is to secure safety from flood, fire, panic or other natural or man-made disaster; To ensure that the development of individual neighborhoods does not conflict with the development of the general welfare of the municipality or of neighboring municipalities, the County of Sussex and the State of New Jersey as a whole; to promote the establishment of appropriate population densities in concentrations that will contribute to the well-being of persons, neighborhoods, communities and regions and the preservation of the environment; to encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies; and to provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens.</i>				
<b>Subdivision Code</b>	Yes	Chapters 18-5: Subdivision and Site Plan Standards and 18-6: Land Subdivision and Site Plan Review	Local	Planning Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.*

<b>Site Plan Code</b>	Yes	Chapters 18-5: Subdivision and Site Plan Standards and 18-6: Land Subdivision and Site Plan Review	Local	Planning Department
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How has or will this be integrated with the HMP and how does this reduce risk?

*Approval of a site plan is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.*

<b>Stormwater Management Code</b>	Yes	Chapter 18: Comprehensive Land Management Code	Local	Engineering
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How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.*

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*

<b>Growth Management</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 2-39: Environmental Commission, Chapter 18: Comprehensive Land Management Code, Chapter 25: Environmental Regulations	Local	Township of Sparta

How has or will this be integrated with the HMP and how does this reduce risk?

- Chapter 2-39: This chapter establishes the Township's Environmental Commission, which serves to protect development, and use natural resources, with the exception of those duties relating to water resources which are presently under the jurisdiction of the Board of Health.*
- Chapter 18: Part of the Code objectives is to secure safety from flood, fire, panic or other natural or man-made disaster; To ensure that the development of individual neighborhoods does not conflict with the development of the general welfare of the municipality or of neighboring municipalities, the County of Sussex and the State of New Jersey as a whole; to promote the establishment of appropriate population densities in concentrations that will contribute to the well-being of persons, neighborhoods, communities and regions and the preservation of the environment; to encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies; and to provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens.*
- Chapter 25: The Lake Mohawk Country Club has conducted studies and has reviewed existing data to determine the current and projected water qualities of Lake Mohawk. The data indicates that lake water quality may be maintained and improved if Lake Mohawk Country Club, with the assistance of the Township of Sparta is able to minimize phosphorous in lawn fertilizer and other chemicals entering the lake as a result of storm water runoff or*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*their causes. The purpose of this section is to promulgate regulations which will aid the Township in maintaining and improving lake resources and to protect the public health by regulating the application of fertilizers.*

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 28: Flood Damage Prevention	Federal, State & Local	Construction Official
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How has or will this be integrated with the HMP and how does this reduce risk?

*It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed:*

- a. Protect human life and health;*
- b. Minimize expenditure of public money for costly flood control projects;*
- c. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;*
- d. Minimize prolonged business interruptions;*
- e. Minimize damage to public facilities and utilities such as water and gas mains, electric telephone and sewer lines, streets and bridges located in areas of special flood hazard;*
- f. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;*
- g. Ensure that potential buyers are notified that property is in an area of special flood hazard; and*
- h. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Emergency Management Ordinance</b>	Yes	Chapter 2-27: Additional Officers and Employees	Local	Office of Emergency Management
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

#### PLANNING DOCUMENTS

<b>General/Comprehensive Plan</b>	Yes	Master Plan, 1984	Local	Planning Department
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How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of this report is to provide a common understanding of the process of planning and to develop a framework within which the Township of Sparta can grow in a healthy manner. In addition, it offers a means of providing more and better facilities to both existing and future development at the least possible expense. At the same time Sparta's greatest asset, its community character, must be preserved~ It is the individuality of Sparta that has made it attractive in the past and which must be preserved in order to attract desirable development in the future.*

<b>Capital Improvement Plan</b>	Yes	Municipal Budget	Local	Township
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How has or will this be integrated with the HMP and how does this reduce risk?

*The municipal budget, which acts as the Township's Capital Improvement Plan, includes various potential projects which may assist in hazard mitigation efforts.*

<b>Disaster Debris Management Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	Yes	Sparta Township Open Space Plan, May 1997	Local	Environmental Commission, Planning Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>The open space plan was created to prepare Sparta Township for the population changes of the 21<sup>st</sup> century. Population growth is inevitable; therefore, residents must be educated on future population trends and current open space lands which should be preserved. This study will offer population data and an inventory of current open space and recreational lands. This report utilizes the Conservation Element of the Master Plan as its foundation.</i>				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	Yes	Community Wildfire Protection Plan	Local	Fire Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>The plan has goals to reduce the vulnerability of communities across the State to damage from wildfire, identify at risk wildland-urban interface areas, reduce excessive wildland fuel accumulations in and around areas of human development, increase community awareness of wildfire issues in New Jersey and promote opportunities to educate the public concerning the same, develop cohesive interagency wildfire risk reduction strategy, and develop partnerships to reduce the wildfire hazards.</i>				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	Yes	Master Plan, 1984	Local	Planning Department
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*The Circulation Plan Element provides an inventory of existing roads and examines jurisdiction, function, and high accident locations. The Plan then provides recommendations for the creation of a more in-depth examination of circulation, including level of service surveys of existing roadways and examining current problem traffic areas as well as potential future problem areas considering the proposed development and redevelopment outlined in this Plan. This proposed Circulation Plan would result in a capital improvement program to provide for needed traffic improvements, which could take place through the redevelopment process. Finally, recommendations for alternative transportation, including bike paths and transit services, are provided.*

<b>Agriculture Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Tourism Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Business/ Downtown Development Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

#### RESPONSE/RECOVERY PLANNING

<b>Emergency Operations Plan</b>	Yes	Township of Sparta EOP, 2023	Local	Office of Emergency Management
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Emergency Operations Plan aims to assess the Township's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.*

<b>Continuity of Operations Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Substantial Damage Response Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Post-Disaster Recovery Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

## 20.3.2 Development and Permitting Capability

Table 20-3 summarizes the capabilities of Sparta to oversee and track development.

Table 20-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	Building Department
<ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>		
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain Development
Do you have a buildable land inventory?	No	-
<ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>		
Describe the level of buildout in your jurisdiction.	N/A	The Township is fairly built out; however, according to the Township's zoning map (November 2016) there are areas zoned for future development in the north western portions of the Township. Large portions of the Township are located in Highlands Perseveration Areas, which limit the amount build out.

## 20.3.3 Administrative and Technical Capability

Table 20-4 summarizes potential staff and personnel resources available to Sparta and their current responsibilities that contribute to hazard mitigation.

Table 20-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Planning Board hears land development applications including Minor Subdivisions, Major Subdivisions and Site Plans. They also update the Zoning ordinances and the Master Plan. The Board consists of nine regular members



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		and two alternates and meets the first and third Wednesdays of each month.
Zoning Board of Adjustment	Yes	The Zoning Board of Adjustment is a municipal board established for the purpose of granting relief to homeowners, businesses, and other developers from the strict application of the Township Zoning Ordinance.
Planning Department	Yes	The Planning/Zoning Department assists in all land usage and future development cases for residential and commercial properties. Applications for zoning variances, subdivisions and site plans, and zoning permits are processed through this office. The Planning Department also helps to develop the Township Master Plan and provides professional planning advice and service to the Planning Board, Zoning Board and Environmental Commission.
Mitigation Planning Committee	Yes	Public Safety Committee, STEP, CERT
Environmental Board/Commission	Yes	The Environmental Commission acts as an advisory board for the protection, development, and use of natural resources for the township of Sparta.
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Community Development
Public Works/Highway Department	Yes	The Public Works Department has many responsibilities. The majority of these duties are to repair and maintain over 100 miles of Township Roads. Snow and Ice control operations are the most visible and most expensive task. Maintenance of Township buildings and grounds are provided through this Department. The Mechanics Division repairs and maintains all Township equipment, trucks, and cars.
Construction/Building/Code Enforcement Department	Yes	The Building Department is tasked with enforcing the State Uniform Construction Code and the issuance of construction permits. The Department consists of a plumbing, building, electrical, and fire inspector, and the construction official.
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management was created in compliance with Chapter 438, Public Law 1953, Statute A:9-41, and Emergency Management Planning and Community Right to Know Act of 1986. The Emergency Management Coordinator is appointed by the Township Manager for a period of three years and must be a Sparta Township resident.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	Sparta Police Department, Fire Department and Surrounding Towns
Human Resources Manual - Do any job descriptions specifically include identifying	Yes	There are no job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk





Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
or implementing mitigation projects or other efforts to reduce natural hazard risk?		
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Township Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Township Engineer
Planners or engineers with an understanding of natural hazards	Yes	Township Engineer
Staff with expertise or training in benefit/cost analysis	Yes	Township Engineer
Professionals trained in conducting damage assessments	Yes	Township Engineer
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Township Engineer
Staff that work with socially vulnerable populations or underserved communities	Yes	<p>The Cultural Affairs Committee is formed by volunteers seeking to bring varied cultural events to the Township residents.</p> <p>The Sparta Township Senior Advisory Committee is appointed by the Township Council to be advocates for the senior population in town.</p> <p>The Salute 07871 Initiative supports past, present and future service members from Sparta who serve in/across all branches of the military.</p> <p>The Sparta Township Stigma-Free Initiative is a town-wide program that works to reduce the stigma surrounding mental illness.</p>
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Police Chief
Grant writers	Yes	Consultant
<p><i>Consider the following:</i></p> <p>Are data and maps from the HMP used to support documentation in grant applications?</p>		
Resilience Officer	Yes	Sgt. Richard Smith, Officer Marc Rubino, Officer Taylor May, Officer Andrew Spitzer, Dispatcher Clifford Cernek
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-



### 20.3.4 Fiscal Capability

Table 20-5 summarizes financial resources available to Sparta.

Table 20-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	Yes
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Yes – Clean Water Act 319 Grants

### 20.3.5 Education and Outreach Capability

Table 20-6 summarizes the education and outreach resources available to Sparta.

Table 20-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Chief Jeffrey McCarrick and Captain Thomas Synder
Personnel skilled or trained in website development	Yes	Contracted
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	Yes	Sparta Township Police department has social media pages
Citizen boards or commissions that address issues related to hazard mitigation	Yes	The Environmental Commission acts as an advisory board for the protection, development, and use of natural resources for the township of Sparta.
Warning systems for hazard events	Yes	Reverse 911, Outdoor warning signals, Township website/social media
Natural disaster/safety programs in place for schools	Yes	Schools in the district have emergency response plans



Outreach Resources	Available? (Yes/No)	Comment
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	<p>The Cultural Affairs Committee is formed by volunteers seeking to bring varied cultural events to the Township residents.</p> <p>The Sparta Township Senior Advisory Committee is appointed by the Township Council to be advocates for the senior population in town.</p> <p>The Salute 07871 Initiative supports past, present and future service members from Sparta who serve in/across all branches of the military.</p> <p>The Sparta Township Stigma-Free Initiative is a town-wide program that works to reduce the stigma surrounding mental illness.</p>
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Township social media, Township website, community engagement events

### 20.3.6 Community Classifications

Table 20-7 summarizes classifications for community programs available to Sparta.

Table 20-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	Class 3	2014
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	Bronze	December 07, 2022
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 20.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future



conditions, and changing risk. Table 20-8 summarizes the adaptive capacity for each identified hazard of concern and the Township's capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 20-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor'easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

## 20.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 20-1 is responsible for maintaining this information.

### 20.4.1 NFIP Statistics

Table 20-9 summarizes the NFIP policy and claim statistics for Sparta.

Table 20-9. Sparta NFIP Summary of Policy and Claim Statistics

# Policies	28
# Claims (Losses)	14
Total Loss Payments	\$32,999.07
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*



*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

*Source: FEMA Region II 2024*

## 20.4.2 Flood Vulnerability Summary

Table 20-10 provides a summary of the NFIP program in Sparta.

Table 20-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Township occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	RMP - Mainstem Delaware River - FY15 (CTP)
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Construction Official
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, online federal, state, and regional online resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would like continuing education and/or certification training on floodplain management.



NFIP Topic	Comments
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Staff and funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	January 11, 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 28: Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	June 20, 2016
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements, but the Township is unsure if the program exceeds requirements.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Planning and Zoning Boards consider efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has subdivision and site plan ordinances.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No, and the Township is not interested in participating.

## 20.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 20-11 through Table 20-13.

Table 20-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	11	0	3	14





	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	10	0	0	10
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	1	0	0	1
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 20-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There has been no major development or infrastructure between 2019 to present.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 20-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There are no known or anticipated major development or infrastructure planned for the next five years.					

## 20.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Sparta's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 20.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 20-1 through Figure 20-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Sparta has significant exposure. The maps show the location of potential new development, where available.

Figure 20-1. Sparta Flood and Sinkhole Hazard Area Extent and Location Map

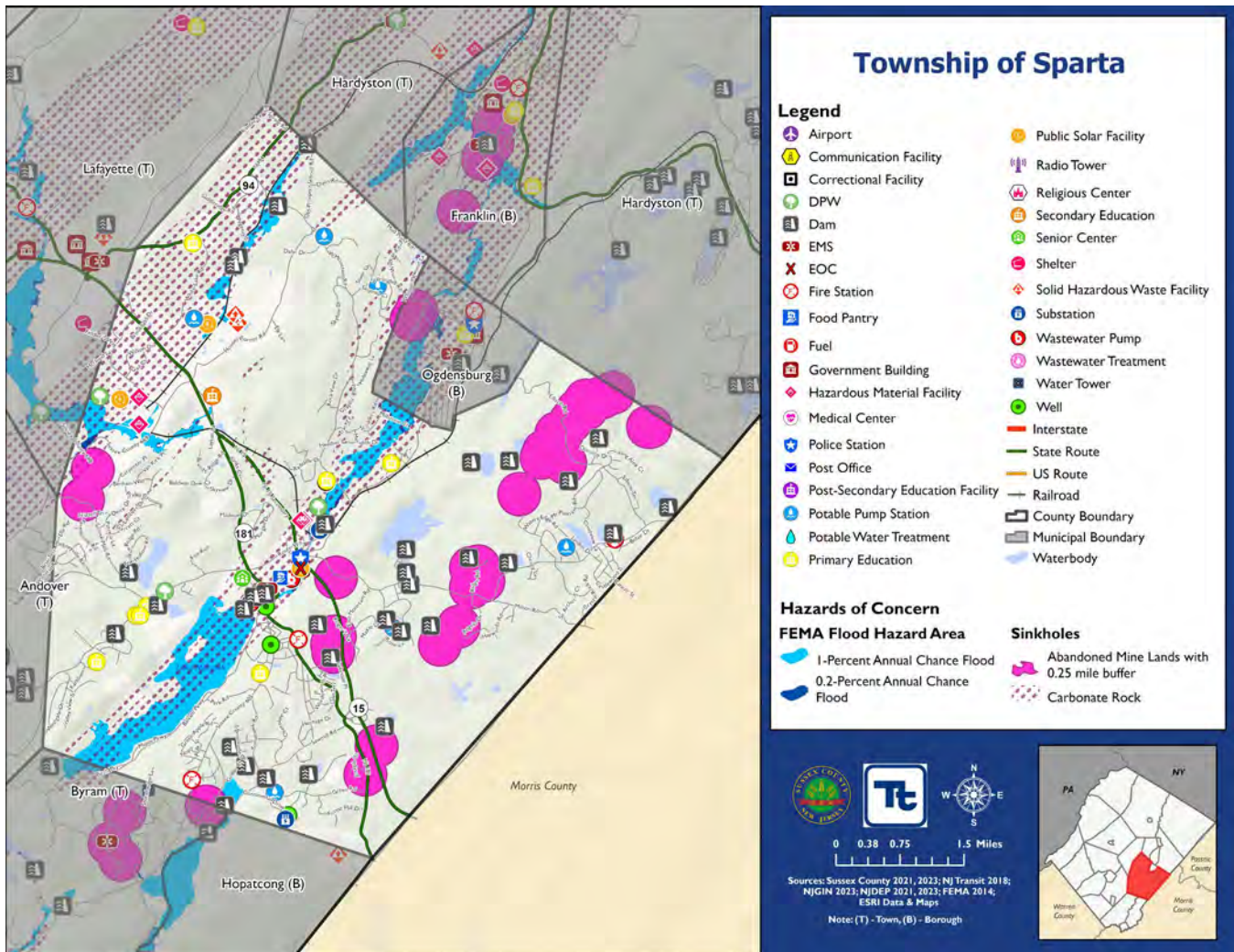




Figure 20-2. Sparta Hazardous Materials and Wildfire Hazard Area Extent and Location Map

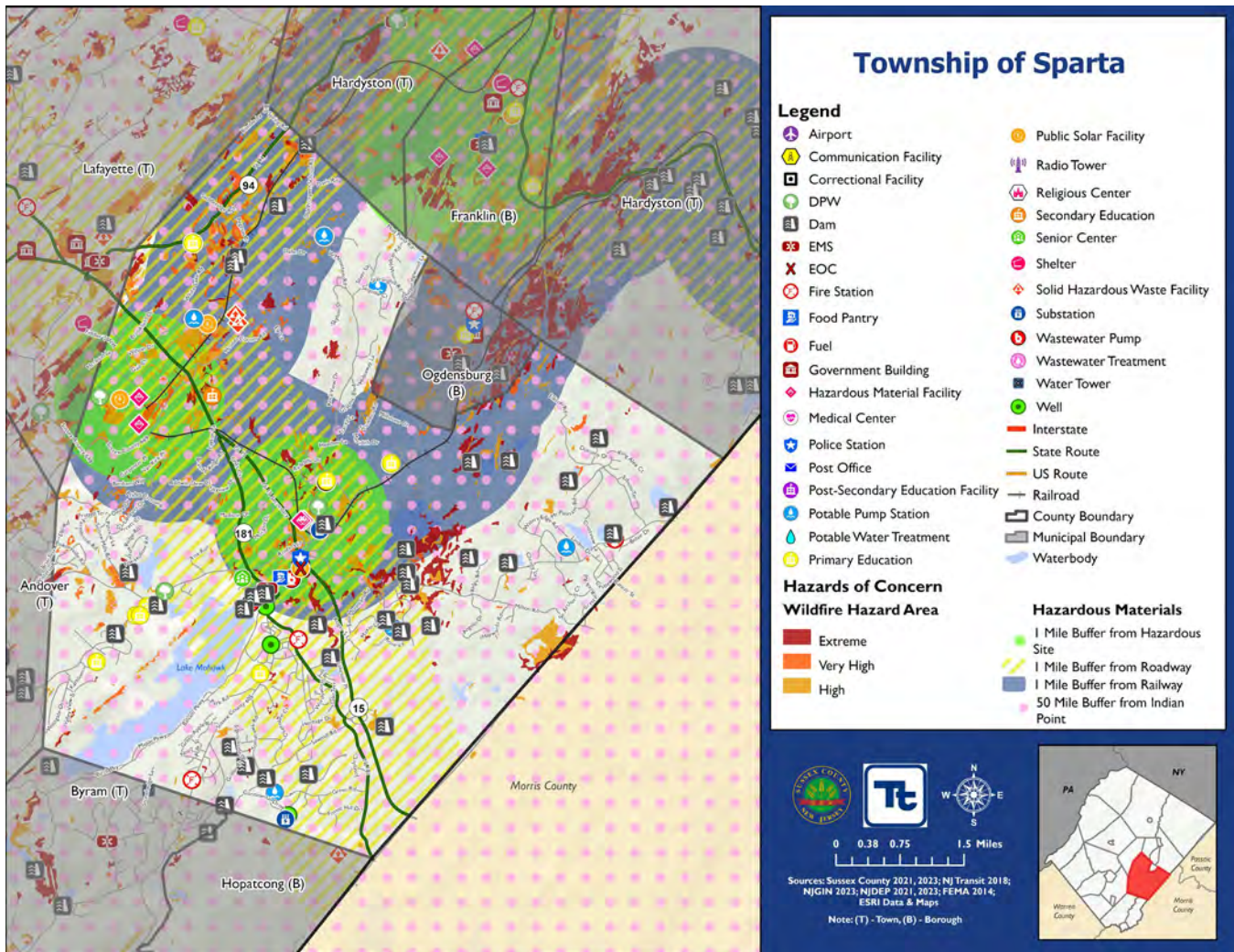
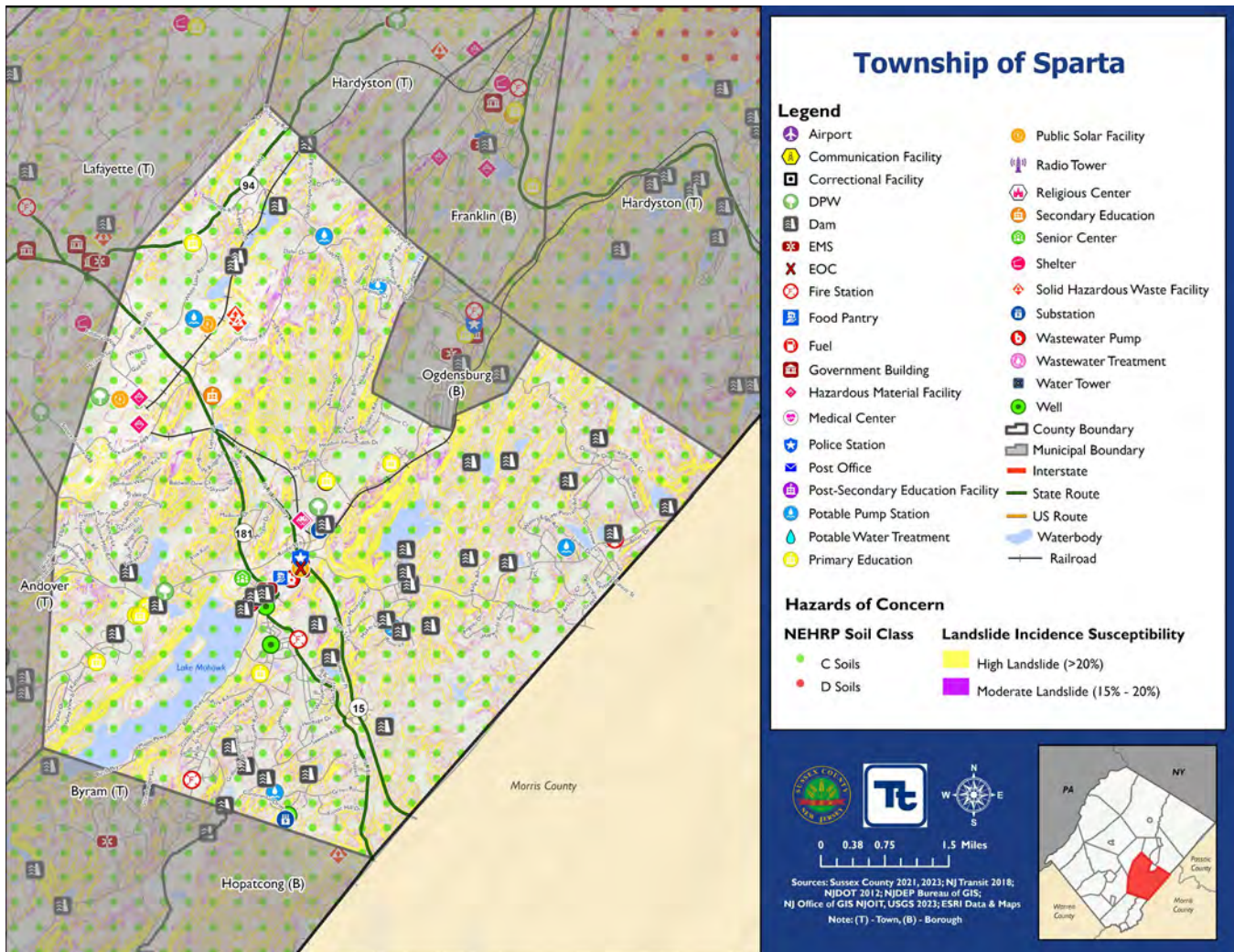




Figure 20-3. Sparta Landslide and NEHRP Soils Hazard Area Extent and Location Map







## 20.6.2 Hazard Event History

The history of natural and non-natural hazard events in Sparta is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 20-14 provides details on loss and damage in Sparta during hazard events since the last hazard mitigation plan update.

Table 20-14. Hazard Event History in Sparta

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Sparta
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Township implemented masking and social distancing mandates. Non-emergent personnel were permitted to work from home.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Downed trees and power lines. Public Works officials assisted in the clean-up on Township maintained roadways and properties.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Heavy snowfall and high snow accumulations impacted the Township. No damages or losses occurred to Township property. Public Works officials assisted in the clean-up on Township maintained roadways and properties.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Flash flooding resulted in road closures. Public Works officials assisted in the clean-up on Township maintained roadways and properties.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 20.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Sparta .



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Sparta reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the hazard rankings were appropriate.

Table 20-15 shows Sparta's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 20-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Low

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 20-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 20-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Ackerson Mill Dam	Dam	Yes	Yes	2025-SpartaTwp-07, 2025-SpartaTwp-08	-





Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Flag Pond Dam	Dam	Yes	Yes	2025-SpartaTwp-07, 2025-SpartaTwp-08	-
Foulds Pond Dam	Dam	Yes	Yes	2025-SpartaTwp-07, 2025-SpartaTwp-08	-
Kaliyuka Pond Dam	Dam	Yes	Yes	2025-SpartaTwp-07, 2025-SpartaTwp-08	-
Lake Grinnell Dam	Dam	Yes	Yes	2025-SpartaTwp-07, 2025-SpartaTwp-08	-
Lake Mohawk Dam	Dam	Yes	Yes	2025-SpartaTwp-07, 2025-SpartaTwp-08	-
Mud Pond Dam	Dam	Yes	Yes	2025-SpartaTwp-07, 2025-SpartaTwp-08	-
Seneca Lake Dam	Dam	Yes	Yes	2025-SpartaTwp-07, 2025-SpartaTwp-08	-
Sparta Junction	Hazardous Material Facility	Yes	Yes	2025-SpartaTwp-07	-

Source: NJGIN 2023; Sussex County 2021, 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Sparta:

- West Shore Trail Dam
- Morris Lake Dam
- Lake Mohawk Dam
- Glen Lake Dam
- Upper Mohawk Lake Dam

## 20.6.4 Identified Issues

After review of Sparta's hazard event history, hazard rankings, hazard location, and current capabilities, Sparta identified the following vulnerabilities within the community:

- Dams in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.
- The Township lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The jurisdiction has identified the community experiences frequently downed trees due to severe storms. The Township does not have a tree maintenance program. Utility companies are responsible for the maintenance of those on or near utility lines. Private homeowners must ensure trees on private property are not threatening power availability/interruption.



- The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has a number of critical facilities in the floodplain including Ackerson Mill Dam, Flag Pond Dam, Foulds Pond Dam, Kaliyuka Pond Dam, Lake Grinnell Dam, Lake Mohawk Dam, Mud Pond Dam, Seneca Lake Dam, and Sparta Junction.
- The Ackerson Mill Dam, Flag Pond Dam, Foulds Pond Dam, Kaliyuka Pond Dam, Lake Grinnell Dam, Lake Mohawk Dam, Mud Pond Dam, and Seneca Lake Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has five high-hazard potential dams, the West Shore Trail Dam, Morris Lake Dam, Lake Mohawk Dam, Glen Lake Dam, and Upper Mohawk Lake Dam, within its jurisdiction. Morris Lake Dam has been replaced in recent years. These structures have the potential to impact those living nearby.
- There are many lakes, ponds, rivers, streams, and tributaries throughout the Township that are adjacent to developed lots, including Township facilities such as the Township Hall and the Township Library. Infrastructure in the Township should be hardened against flooding events to protect continuity of operations.
- Groundwater in the Germany Flats area of Township requires protection from potential contamination. The contamination of groundwater can impact potable water sources in the Township, as well as any recreational sites with a waterbody. These contaminants negatively impact the health of wildfire and human life.
- Windows of the Germany Flats pump facility are not impact resistant and pose a threat in the event of a high wind event. Impact resistant windows provide a barrier during severe weather and severe winter weather events. High winds associated with these hazards can blow debris into windows, potentially endangering those inside the structure, as well as damaging the structure itself, if the windows are not impact resistant.
- Glen Brook and Walkill River are prone to erosion of streambanks, threatening homes, roadways, and a JCP&L substation. The erosion of streambanks can cause flooding conditions in surrounding areas, putting infrastructure, property, and lives at risk.
- The Township does not participate in the Firewise program. Despite low wildfire risk, the Township is interested in enrollment. The Firewise program helps the entire community become more prepared, and ultimately resilient, to the wildfire hazard through connections with local firefighters and state professionals, understanding fire fuel and how to dispose and prevent it, and learning how to protect property from wildfires.
- West Mountain Road floods regularly between the High School football field and Main Street. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.



- A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- West Shore Trail Dam is a Class I High Hazard Dam that is located on the Walkill River. The dam is owned by the Estate of Bernard A. Handler. Failure of the dam could result in inundation of populated areas, wooded areas, and local roadways including West Shore Trail, Andover Mohawk Road, and Hemlock Terrace. The dam was last inspected in 2020 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Morris Lake Dam is a Class I High Hazard Dam that is located between the Newton Reservoir and Glen Lake. The dam is owned by the Town of Newton. Failure of the dam could result in inundation of populated areas, wooded areas, recreational areas, and local roadways including Morris Lake Road, Glen Lake Road, Burnbrae Road, and Burnbrae Lane. The Morris Lake Dam is located upstream of the Glen Lake Dam, therefore should a failure occur at the Morris Lake Dam, there is an increased risk of failure for the Glen Lake Dam, as the influx of water may impact its structural integrity. Although the Morris Lake Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Lake Mohawk Dam is a Class I High Hazard Dam that is located on Lake Mohawk. The dam is owned by the Lake Mohawk Country Club. Failure of the dam could result in inundation of densely populated areas, recreational areas, critical facilities and community lifelines, and local roadways including West Shore Trail, East Shore Trail, and Winona Parkway. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Glen Lake Dam is a Class I High Hazard Dam that is located on Glen Lake. The dam is owned by the Glen Lake Beach Club. Failure of the dam could result in inundation of populated areas, wooded areas, recreational areas, and local roadways including Morris Lake Road, Glen Road, Glen Lake Road, Arapaho Trail, and Kennedy Place. The Glen Lake Dam is located downstream of the Morris Lake Dam, therefore should a failure occur at the Morris Lake Dam, there is an increased risk of failure for the Glen Lake Dam, as the influx of water may impact its structural integrity. Although the Glen Lake Dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Upper Mohawk Lake Dam is a Class I High Hazard Dam that is located on Upper Lake Mohawk. The dam is owned by the Lake Mohawk Country Club. Failure of the dam could result in inundation of densely populated areas, recreational areas, critical facilities and community lifelines, and local roadways including Spart Avenue, South Shore Trail, North Shore Trail, West Shore Trail, Sagemore Trail, and North Shore Terrace. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.



## 20.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 20.7.1 Past Mitigation Action Status

Table 20-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 20.7.2 Additional Mitigation Efforts

Sparta did not identify any additional mitigation efforts completed since the last HMP.



Table 20-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Sparta-001	Flood Damage Prevention/Mitigation	Flood	Engineer, OEM	<p><b>Problem:</b> There are many lakes, ponds, rivers, streams, and tributaries throughout the Township that are adjacent to developed lots, including Township facilities such as the Township Hall and the Township Library. Infrastructure in the Township should be hardened against flooding events to protect continuity of operations.</p> <p><b>Solution:</b> The Township will undertake a feasibility assessment to determine what must be done to harden infrastructure against flooding and construct the cost-effective projects identified to prevent/mitigate flooding damage.</p>	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable
2021-Sparta-002	Groundwater Quality Protection	Hazardous Materials	Engineering, Utilities	<p><b>Problem:</b> Groundwater in the Germany Flats area of Township requires protection from potential contamination.</p> <p><b>Solution:</b> Engineering/utilities will research potential equipment/technologies that could be put in place to protect groundwater. If viable, the Township will work to use these equipment/technologies in the Township's water supply system.</p>	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Sparta-003	Backup Power for Sparta Ambulance Service	Hurricane, Nor'easter, Severe Weather, Severe Winter Weather	Engineer, OEM	<p><b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. The shelter located within the Sparta Ambulance Service building on Sparta Avenue lacks backup power.</p> <p><b>Solution:</b> The Engineer will research what size generator is needed to power the Sparta Ambulance Service building. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Sparta Ambulance Service building.</p>	<p>1. Complete</p> <p>2. The Township purchased and installed an automated natural gas generator.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Action complete</p>
2021-Sparta-004	Harden DPW Building	Hurricane, Severe Weather	Public Works, Engineer, OEM	<p><b>Problem:</b> The Township would like to use the DPW building located on Prices Lane as a safe room for tornadoes and hurricanes. The Township has already installed a backup generator to support the site.</p> <p><b>Solution:</b> The Township will work to harden the DPW building using FEMA 361 standards.</p>	<p>1. Completed</p> <p>2. Sparta Township has built a 14,400 square foot salt shed with has 14ft high concrete walls which will act as a safe room.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Action complete</p>
2021-Sparta-005	Harden Germany Flats Pump Facility	Hurricane, Nor'easter, Severe Weather, Severe	OEM, Public Works	<p><b>Problem:</b> Windows of the Germany Flats pump facility are not impact resistant and pose a threat in the event of a high wind event.</p>	<p>1. No Progress</p> <p>2. The Township was not able to secure funding for this project</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. Not applicable</p>





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Winter Weather		<b>Solution:</b> The Township will retrofit impact resistant windows and shutters on Germany Flats Pump Facility located on Park Lake Drive.		
2021-Sparta-006	Streambank Stabilization	Flood, Hurricane, Nor'easter, Severe Weather	Engineer	<b>Problem:</b> Glen Brook and Walkill River are prone to erosion of streambanks, threatening homes, roadways, and a JCP&L substation.  <b>Solution:</b> The Township will determine the proper stream stabilization techniques for a 3,500 foot section of Glen Brook and a 1,500 section of the Walkill River at Station Park. Once the techniques are established, the Township will implement stream stabilization and continue to monitor the locations to measure success and needs for additional measures.	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable
2021-Sparta-007	Firewise	Wildfire	OEM	<b>Problem:</b> The Township does not participate in the Firewise program. Despite low wildfire risk, the Township is interested in enrollment.  <b>Solution:</b> The Township will enroll in the Firewise program.	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable
2021-Sparta-008	Culvert at West Mountain Road	Flood, Severe Weather	Engineer	<b>Problem:</b> West Mountain Road floods regularly between the High	1. No Progress 2. The Township was not able to secure funding for this project	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				School football field and Main Street.  <b>Solution:</b> The Township will replace the culvert at West Mountain Road and elevate the roadway to allow for larger storm events.		
2021-Sparta-009	Disaster Debris Management Plan	Dam Failure, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	DPW, OEM	<b>Problem:</b> The Township lacks a Disaster Debris Management Plan.  <b>Solution:</b> The Township will develop and adopt a Disaster Debris Management Plan.	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



### 20.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Sparta participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Sparta would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 20-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 20-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 20-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X			X		X	X
Disease Outbreak				X			X			
Drought		X		X			X			X
Earthquake	X	X		X			X			X
Flood	X	X	X	X	X	X	X	X	X	X
Geological Hazards	X			X			X			X
Hazardous Materials	X	X		X	X		X			X
Hurricane	X	X	X	X	X	X	X	X	X	X
Infestation				X			X			
Nor'easter	X	X	X	X	X	X	X	X	X	X
Severe Weather	X	X	X	X	X	X	X	X	X	X
Severe Winter Weather	X	X	X	X	X	X	X	X		X
Wildfire	X	X		X			X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 20-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-SpartaTwp-01	Dam Repair	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-SpartaTwp-02	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-SpartaTwp-03	Tree Maintenance	0	1	1	1	1	1	1	1	1	1	0	1	0	0	10	Medium
2025-SpartaTwp-04	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-SpartaTwp-05	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-SpartaTwp-06	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-SpartaTwp-07	Critical Facilities in the Floodplain	0	1	1	1	1	0	0	0	1	0	1	1	1	0	8	Medium
2025-SpartaTwp-08	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-SpartaTwp-09	Flood Damage Prevention and Mitigation	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-SpartaTwp-10	Groundwater Quality Protection	1	0	1	1	1	1	1	1	1	0	0	1	1	0	10	Medium
2025-SpartaTwp-11	Harden Germany Flats Pump Facility	0	1	1	1	1	0	0	0	1	1	1	1	1	0	9	Medium
2025-SpartaTwp-12	Streambank Stabilization	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-SpartaTwp-13	Firewise Program Participation	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-SpartaTwp-14	Culvert at West Mountain Road	1	1	1	1	1	0	1	1	1	1	1	1	0	0	11	High
2025-SpartaTwp-15	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High



Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-SpartaTwp-16	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-SpartaTwp-17	West Shore Trail Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-SpartaTwp-18	Morris Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-SpartaTwp-19	Lake Mohawk Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-SpartaTwp-20	Glen Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-SpartaTwp-21	Upper Mohawk Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).





## Action 2025-SpartaTwp-01. Dam Repair

<b>Lead Agency:</b>	Engineer						
<b>Supporting Agencies:</b>	Dam Manager, NJDEP Bureau of Dam Safety, County Engineer						
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire						
<b>Description of the Problem:</b>	<p>The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:</p> <ul style="list-style-type: none"> <li>• Camp Ryker Lake Dam (poor)</li> <li>• Sparta Lake Dam (unsatisfactory)</li> <li>• Rock Island Lake Dam (poor)</li> <li>• Lake Grinnell Dam (poor)</li> </ul> <p>Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.</p>						
<b>Description of the Solution:</b>	<p>The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.</p>						
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected						
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget						
<b>Implementation Timeline:</b>	Within 5 years						
<b>Goals Met:</b>	1, 2, 3						
<b>Benefits:</b>	Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.						
<b>Impact on Socially Vulnerable Populations:</b>	The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.						
<b>Impact on Future Development:</b>	Future development downstream of dams will also be protected from dam failure.						
<b>Impact on Critical Facilities/Lifelines:</b>	Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.						
<b>Impact on Capabilities:</b>	Not applicable						
<b>Climate Change Considerations:</b>	Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.						
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)						
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)						
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low				
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th> <th>Evaluation</th> </tr> </thead> <tbody> <tr> <td>No Action</td> <td>Risk of dam failure remains or increases over time</td> </tr> </tbody> </table>			Action	Evaluation	No Action	Risk of dam failure remains or increases over time
Action	Evaluation						
No Action	Risk of dam failure remains or increases over time						



	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access
	Remove all dams	Without proper analysis, dam removal may increase flooding risk



## Action 2025-SpartaTwp-02. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Public Works, Township Administration		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials         </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire         </div>		
<b>Description of the Problem:</b>	The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.		
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	5		
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.		
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable		
<b>Impact on Future Development:</b>	Not Applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable		
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP)         </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP)         </div>		
<b>CRS Category</b>	<div> <input type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI)         </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES)         </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Rely on federal cleanup	These services may or may not be available	
	Rely on state cleanup	These services may or may not be available	



## Action 2025-SpartaTwp-03. Tree Maintenance

<b>Lead Agency:</b>	Public Works		
<b>Supporting Agencies:</b>	Parks and Recreation, Utility Companies, Property Owners		
<b>Hazard(s) of Concern:</b>	<div> <input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire </div>		
<b>Description of the Problem:</b>	The jurisdiction has identified the community experiences frequently downed trees due to severe storms. The Township does not have a tree maintenance program. Utility companies are responsible for the maintenance of those on or near utility lines. Private homeowners must ensure trees on private property are not threatening power availability/interruption.		
<b>Description of the Solution:</b>	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption in conjunction with property owners and utility companies.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	4 years		
<b>Goals Met:</b>	1, 2, 5, 7		
<b>Benefits:</b>	This action will result in the reduction of risk surrounding power outages by minimizing potential impacts from trees on utility lines.		
<b>Impact on Socially Vulnerable Populations:</b>	Some socially vulnerable population rely on power utilities for everyday care. If power outages are caused by a lack of tree maintenance, lives could potentially be at risk.		
<b>Impact on Future Development:</b>	This action assists in the protection of future development from impacts caused by tree collapses or branch falls as a result of severe weather, severe winter weather, hurricanes, and nor'easters.		
<b>Impact on Critical Facilities/Lifelines:</b>	Utility lines provide power to residencies, private businesses, government entities, and various providers. Not maintaining trees, tree limbs, or tree branches may impact the availability of power during severe weather and severe winter weather events.		
<b>Impact on Capabilities:</b>	The creation of a tree maintenance program would be a new capability for the Township.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to trees or tree limbs/branches falling or impacting utility lines and property.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input checked="" type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input checked="" type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Municipal-owned trees will be maintained
	Do not contact utility companies		Trees along utility lines may impact power during severe weather and severe winter weather events
	Do not contact property owners		Trees on private residencies may impact power during severe weather and severe winter weather events



## Action 2025-SpartaTwp-04. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure         <input checked="" type="checkbox"/> Disease Outbreak         <input checked="" type="checkbox"/> Drought         <input checked="" type="checkbox"/> Earthquake         <input checked="" type="checkbox"/> Flood         <input checked="" type="checkbox"/> Geological Hazards         <input checked="" type="checkbox"/> Hazardous Materials       </div> <div> <input checked="" type="checkbox"/> Hurricane         <input checked="" type="checkbox"/> Infestation         <input checked="" type="checkbox"/> Nor'easter         <input checked="" type="checkbox"/> Severe Weather         <input checked="" type="checkbox"/> Severe Winter Weather         <input checked="" type="checkbox"/> Wildfire       </div>		
<b>Description of the Problem:</b>	The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Township by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Township.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Township.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-SpartaTwp-05. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator										
<b>Supporting Agencies:</b>	Planning Board, Township Administration										
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire										
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.										
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.										
<b>Estimated Cost:</b>	Staff time, Low										
<b>Potential Funding Sources:</b>	Township Budget										
<b>Implementation Timeline:</b>	Within 2 years										
<b>Goals Met:</b>	1, 2, 5										
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.										
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.										
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.										
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.										
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.										
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)										
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th> <th>Evaluation</th> </tr> </thead> <tbody> <tr> <td>No action</td> <td>Current problem remains</td> </tr> <tr> <td>Only share opportunities when notified of grant funding</td> <td>May not be enough time to garner interest or write application</td> </tr> <tr> <td>Wait for information from the State on flood-damaged properties</td> <td>May be a delay in notice</td> </tr> </tbody> </table>	Action	Evaluation	No action	Current problem remains	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	Wait for information from the State on flood-damaged properties	May be a delay in notice		
Action	Evaluation										
No action	Current problem remains										
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application										
Wait for information from the State on flood-damaged properties	May be a delay in notice										





## Action 2025-SpartaTwp-06. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Engineering, Building Department, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-SpartaTwp-07. Critical Facilities in the Floodplain

<b>Lead Agency:</b>	Facility Managers		
<b>Supporting Agencies:</b>	Emergency Management, Floodplain Administrator		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has a number of critical facilities in the floodplain including Ackerson Mill Dam, Flag Pond Dam, Foulds Pond Dam, Kaliyuka Pond Dam, Lake Grinnell Dam, Lake Mohawk Dam, Mud Pond Dam, Seneca Lake Dam, and Sparta Junction.		
<b>Description of the Solution:</b>	Coordinate with the facility managers at the Ackerson Mill Dam, Flag Pond Dam, Foulds Pond Dam, Kaliyuka Pond Dam, Lake Grinnell Dam, Lake Mohawk Dam, Mud Pond Dam, Seneca Lake Dam, and Sparta Junction in the Township to support the mitigation of vulnerable structures via retrofit (e.g., elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Township Budget, Facilities		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action will remove or reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders.		
<b>Impact on Socially Vulnerable Populations:</b>	Retrofitting or relocating the identified structures will benefit socially vulnerable populations, as individuals within these populations rely on resources from various government facilities, transportation facilities, and medical and senior care facilities.		
<b>Impact on Future Development:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Critical Facilities/Lifelines:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem remains
	Floodproof existing structures		May not necessarily reduce risk



	Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function
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## Action 2025-SpartaTwp-08. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM																
<b>Supporting Agencies:</b>	NJDEP, Dam Owners																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
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<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Ackerson Mill Dam, Flag Pond Dam, Foulds Pond Dam, Kaliyuka Pond Dam, Lake Grinnell Dam, Lake Mohawk Dam, Mud Pond Dam, and Seneca Lake Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has five high-hazard potential dams, the West Shore Trail Dam, Morris Lake Dam, Lake Mohawk Dam, Glen Lake Dam, and Upper Mohawk Lake Dam, within its jurisdiction. Morris Lake Dam has been replaced in recent years. These structures have the potential to impact those living nearby.																
<b>Description of the Solution:</b>	The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5, 7																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Township will be unaware of any safety concerns for the dam or its condition</td></tr><tr><td>Utilize information from NJDEP</td><td>Owners may not be required to submit a safety plan to the State</td></tr><tr><td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr></table>	Action	Evaluation	No Action	Township will be unaware of any safety concerns for the dam or its condition	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory								
Action	Evaluation																
No Action	Township will be unaware of any safety concerns for the dam or its condition																
Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State																
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory																



## Action 2025-SpartaTwp-09. Flood Damage Prevention and Mitigation

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Emergency Management		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	There are many lakes, ponds, rivers, streams, and tributaries throughout the Township that are adjacent to developed lots, including Township facilities such as the Township Hall and the Township Library. Infrastructure in the Township should be hardened against flooding events to protect continuity of operations.		
<b>Description of the Solution:</b>	The Township will undertake a feasibility assessment to determine what must be done to harden infrastructure against flooding and construct the cost-effective projects identified to prevent/mitigate flooding damage.		
<b>Estimated Cost:</b>	Dependent upon number of selected projects and types of projects		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Township from the various waterbodies which flow through the Township.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding from the various waterbodies which flow through the Township. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.		
<b>Impact on Future Development:</b>	Future development in the Township will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding from the various waterbodies which flow through the Township, permitting first responders to traverse the roadways safely.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Acquire all potentially impacted structures	Cost prohibitive	
	Construct floodwall along creek	Cost prohibitive	



## Action 2025-SpartaTwp-10. Groundwater Quality Protection

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Utility Services																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Groundwater in the Germany Flats area of Township requires protection from potential contamination. The contamination of groundwater can impact potable water sources in the Township, as well as any recreational sites with a waterbody. These contaminants negatively impact the health of wildlife and human life.																
<b>Description of the Solution:</b>	Engineering and utilities will research potential equipment/technologies that could be put in place to protect groundwater. If viable, the Township will work to use these equipment/technologies in the Township's water supply system.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	Township Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 5, 7																
<b>Benefits:</b>	This action protects the groundwater, and consequently the environment, from potential contamination.																
<b>Impact on Socially Vulnerable Populations:</b>	This action will protect all populations from potential contamination of potable water, which may come from groundwater in areas of the Township.																
<b>Impact on Future Development:</b>	Groundwater contamination near future development would be protected from potential contamination.																
<b>Impact on Critical Facilities/Lifelines:</b>	The water systems lifeline would receive additional protections from potential contaminants, which further protects life safety.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Increased heavy rainfall may lead to more contaminants from water runoff being absorbed into groundwater supplies.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Ban hazardous materials in Township</td><td>Not possible</td></tr><tr><td>Develop contract with neighboring towns for water access in event of contamination</td><td>Neighboring municipal capacity would be unable to meet needs</td></tr></table>	Action	Evaluation	No action	Current problem continues	Ban hazardous materials in Township	Not possible	Develop contract with neighboring towns for water access in event of contamination	Neighboring municipal capacity would be unable to meet needs								
Action	Evaluation																
No action	Current problem continues																
Ban hazardous materials in Township	Not possible																
Develop contract with neighboring towns for water access in event of contamination	Neighboring municipal capacity would be unable to meet needs																





## Action 2025-SpartaTwp-11. Harden Germany Flats Pump Facility

<b>Lead Agency:</b>	Facility Manager																
<b>Supporting Agencies:</b>	Public Works, Emergency Management																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Windows of the Germany Flats pump facility are not impact resistant and pose a threat in the event of a high wind event. Impact resistant windows provide a barrier during severe weather and severe winter weather events. High winds associated with these hazards can blow debris into windows, potentially endangering those inside the structure, as well as damaging the structure itself, if the windows are not impact resistant.																
<b>Description of the Solution:</b>	The Township will retrofit impact resistant windows and shutters on Germany Flats Pump Facility located on Park Lake Drive.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Township Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	2, 6																
<b>Benefits:</b>	This action will protect the Germany Flats pump facility from wind damage associated with severe weather, severe winter weather, hurricanes, nor'easters, and any debris which the winds may elevate.																
<b>Impact on Socially Vulnerable Populations:</b>	The Germany Flats pump facility may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.																
<b>Impact on Future Development:</b>	Not applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect the Germany Flats pump facility from potential wind damages caused by debris.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as hurricanes, nor'easters, winter storms, and winds. This action accounts for a likely increase in flying debris which may damage windows.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Build new structures</td><td>Costly, unnecessary</td></tr><tr><td>Replace all windows without conducting the study</td><td>May be unnecessary, costly</td></tr></table>	Action	Evaluation	No action	Current problem continues	Build new structures	Costly, unnecessary	Replace all windows without conducting the study	May be unnecessary, costly								
Action	Evaluation																
No action	Current problem continues																
Build new structures	Costly, unnecessary																
Replace all windows without conducting the study	May be unnecessary, costly																



## Action 2025-SpartaTwp-12. Streambank Stabilization

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	-		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Glen Brook and Walkill River are prone to erosion of streambanks, threatening homes, roadways, and a JCP&L substation. The erosion of streambanks can cause flooding conditions in surrounding areas, putting infrastructure, property, and lives at risk.		
<b>Description of the Solution:</b>	The Township will determine the proper stream stabilization techniques for a 3,500 feet section of Glen Brook and a 1,500 section of the Walkill River at Station Park. Once the techniques are established, the Township will implement stream stabilization and continue to monitor the locations to measure success and needs for additional measures.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Municipal Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action will prevent erosion along the Glen Brook and Walkill River, protecting property and infrastructure from further impact.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding from the Glen Brook and Walkill River. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding from the Glen Brook and Walkill River, permitting first responders to traverse the roadways safely.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These periods of intense rain may lead to more instances of flooding and increased erosion.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input checked="" type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input checked="" type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem continues	
	Remove properties impacted by stream overflow	Costly	
	Construct floodwall to prevent flooding	Cost prohibitive and could ruin natural floodplain function	



## Action 2025-SpartaTwp-13. Firewise Program Participation

<b>Lead Agency:</b>	Fire Department		
<b>Supporting Agencies:</b>	Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not participate in the Firewise program. Despite low wildfire risk, the Township is interested in enrollment. The Firewise program helps the entire community become more prepared, and ultimately resilient, to the wildfire hazard through connections with local firefighters and state professionals, understanding fire fuel and how to dispose and prevent it, and learning how to protect property from wildfires.		
<b>Description of the Solution:</b>	The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up outreach meetings.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	1, 2, 3, 4, 5		
<b>Benefits:</b>	The national Firewise USA recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township may be located within very high and high fuel risk areas for wildfires. Participation in the Firewise Program will assist in the Township's efforts to educate populations on how to increase the ignition resistance of their home sand property.		
<b>Impact on Future Development:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made. This assessment may identify areas which the Township would like to restrict future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made, which could include relocating various critical facilities or lifelines.		
<b>Impact on Capabilities:</b>	This action will increase wildfire risk reduction and response capabilities for the Township.		
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	The Township does not participate in the Firewise Program	
	Complete half of the program requirements	The Township would not be eligible to participate in the Firewise Program	



	Participate in the program, but do not utilize resources	The Township would miss opportunities to strengthen communication and safety skills
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## Action 2025-SpartaTwp-14. Culvert at West Mountain Road

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	West Mountain Road floods regularly between the High School football field and Main Street. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	The Township Engineer will complete an engineering survey of culverts on West Mountain Road that are undersized and contribute to flooding to determine the proper size necessary to provide stormwater capacity. The Township Public Works will complete the necessary upsizing for those culverts noted to be undersized.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, Township Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	1, 2		
<b>Benefits:</b>	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.		
<b>Impact on Socially Vulnerable Populations:</b>	Areas that were previously vulnerable to frequency or severe flooding events will be less likely to be impacted by flooding events.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	Transportation routes are more likely to remain open, which allows evacuation routes to remain intact. Furthermore, Access to health and medical facilities will be maintained, both for healthcare workers and the population who requires treatment for injuries and illness.		
<b>Impact on Capabilities:</b>	Identifying the culverts that are at greatest risk of damage or failure can allow for resource staging to take place where the need is greatest ahead of a flood event.		
<b>Climate Change Considerations:</b>	Climate change is likely to result in more frequent and severe rainfall events. This action upsizes culvert sizes to meet changing stormwater needs as the result of climate change.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Remove roadway	Roadway cannot be removed	
	Raingardens	Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.	



## Action 2025-SpartaTwp-15. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Building Department, Township Administration, NFIP State Coordinator, FEMA Regional Office		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	<p>A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.</p>		
<b>Description of the Solution:</b>	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.		
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.		
<b>Impact on Capabilities:</b>	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.		
<b>Climate Change Considerations:</b>	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem exists
	Modify existing flood damage prevention ordinance		Time intensive





	Leave NFIP	Residents lose flood insurance coverage
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## Action 2025-SpartaTwp-16. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input checked="" type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP) </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP) </div> </div>		
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI) </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES) </div> </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<div style="display: flex; justify-content: space-between;"> <div><b>Action</b></div> <div><b>Evaluation</b></div> </div>		



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-SpartaTwp-17. West Shore Trail Dam Rehab

<b>Lead Agency:</b>	Estate of Bernard A. Handler		
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input type="checkbox"/> Nor'easter  <input type="checkbox"/> Severe Weather  <input type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	West Shore Trail Dam is a Class I High Hazard Dam that is located on the Wallkill River. The dam is owned by the Estate of Bernard A. Handler. Failure of the dam could result in inundation of populated areas, wooded areas, and local roadways including West Shore Trail, Andover Mohawk Road, and Hemlock Terrace. The dam was last inspected in 2020 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.		
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Estate of Bernard A. Handler to complete an engineering study of West Shore Trail Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Estate of Bernard A. Handler will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 8		
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.		
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.		
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)		
<b>CRS Category</b>	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		
<b>CRS Category</b>	<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem continues	
	Decommission Dam	High cost, flood risk for nearby infrastructure increased.	



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-SpartaTwp-18. Morris Lake Dam Rehab

<b>Lead Agency:</b>	Town of Newton																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Morris Lake Dam is a Class I High Hazard Dam that is located between the Newton Reservoir and Glen Lake. The dam is owned by the Town of Newton. Failure of the dam could result in inundation of populated areas, wooded areas, recreational areas, and local roadways including Morris Lake Road, Glen Lake Road, Burnbrae Road, and Burnbrae Lane. The Morris Lake Dam is located upstream of the Glen Lake Dam, therefore should a failure occur at the Morris Lake Dam, there is an increased risk of failure for the Glen Lake Dam, as the influx of water may impact its structural integrity. Although the Morris Lake Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Town of Newton to complete an engineering study of Morris Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Town of Newton will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr></table>	Action	Evaluation	No Action	Current problem continues												
Action	Evaluation																
No Action	Current problem continues																





	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of the Newton Reservoir as a water supply resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## Action 2025-SpartaTwp-19. Lake Mohawk Dam Rehab

<b>Lead Agency:</b>	Lake Mohawk Country Club																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Lake Mohawk Dam is a Class I High Hazard Dam that is located on Lake Mohawk. The dam is owned by the Lake Mohawk Country Club. Failure of the dam could result in inundation of densely populated areas, recreational areas, critical facilities and community lifelines, and local roadways including West Shore Trail, East Shore Trail, and Winona Parkway. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Lake Mohawk Country Club to complete an engineering study of Lake Mohawk Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Lake Mohawk Country Club will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Lake Mohawk as an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Mohawk as an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Mohawk as an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-SpartaTwp-20. Glen Lake Dam Rehab

<b>Lead Agency:</b>	Glen Lake Beach Club																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Glen Lake Dam is a Class I High Hazard Dam that is located on Glen Lake. The dam is owned by the Glen Lake Beach Club. Failure of the dam could result in inundation of populated areas, wooded areas, recreational areas, and local roadways including Morris Lake Road, Glen Road, Glen Lake Road, Arapaho Trail, and Kennedy Place. The Glen Lake Dam is located downstream of the Morris Lake Dam, therefore should a failure occur at the Morris Lake Dam, there is an increased risk of failure for the Glen Lake Dam, as the influx of water may impact its structural integrity. Although the Glen Lake Dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Glen Lake Beach Club to complete an engineering study of Glen Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Glen Lake Beach Club will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr></table>	Action	Evaluation	No Action	Current problem continues												
Action	Evaluation																
No Action	Current problem continues																



	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Glen Lake as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## Action 2025-SpartaTwp-21. Upper Mohawk Lake Dam Rehab

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Upper Mohawk Lake Dam is a Class I High Hazard Dam that is located on Upper Lake Mohawk. The dam is owned by the Lake Mohawk Country Club. Failure of the dam could result in inundation of densely populated areas, recreational areas, critical facilities and community lifelines, and local roadways including Spart Avenue, South Shore Trail, North Shore Trail, West Shore Trail, Sagemore Trail, and North Shore Terrace. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Lake Mohawk Country Club to complete an engineering study of Upper Mohawk Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Lake Mohawk Country Club will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
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Action	Evaluation																
No Action	Current problem continues																





	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Upper Lake Mohawk as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## 21. BOROUGH OF STANHOPE

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Borough of Stanhope with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Stanhope, describes who participated in the planning process, assesses Stanhope's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 21.1 HAZARD MITIGATION PLANNING TEAM

The Borough of Stanhope identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Borough departments. The Borough Administrator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 21-1 summarizes Borough officials who participated in the development of the annex and in what capacity. Additional documentation of the Borough's planning activities through Planning Partnership meetings is included in Volume I.

Table 21-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Brien McNeilly / Borough Administrator Address: 77 Main Street, Stanhope, NJ 07874 Phone Number: (973) 347-0159 ext. 14 Email: bmcneilly@stanhopenj.gov	Name/Title: Eric Keller / Borough Engineer Address: 54 Horsehill Rd Ste 100, Cedar Knolls, NJ 07927 Phone Number: (973) 291-2919 Email: ekeller@bowmanconsulting.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Thomas Pershouse / Construction Official Address: 77 Main Street, Stanhope, NJ 07874 Phone Number: (973) 347-0159 ext. 20 Email: tminniti@stanhopenj.gov	
<b>Additional Contributors</b>	
Name/Title: Brien McNeilly / Borough Administrator Method of Participation: Provided critical information for the Borough's annex development; completed sign off sheet.	
Name/Title: Eric Keller / Borough Engineer Method of Participation: Provided critical information for the Borough's annex development; completed sign off sheet.	
Name/Title: Thomas Pershouse / Construction Official Method of Participation: Provided critical information for the Borough's annex development	
Name/Title: Jason Titsworth / DPW Superintendent Method of Participation: Provided critical information for the Borough's annex development; completed sign off sheet.	
Name/Title: Wayne Anthony / OEM Coordinator Method of Participation: Provided critical information for the Borough's annex development; completed sign off sheet.	



## 21.2 COMMUNITY PROFILE

The Borough of Stanhope is located at the southern tip of Sussex County. It has a total area of 2.2 square miles and is bordered to the north and west by Byram Townships, to the north and east by Hopatcong Borough and to the south by Morris County. Lake Musconetcong is a large lake located in the southeastern portion of the Borough. Tributaries of the Musconetcong River flow through the Borough. According to the U.S. Census, the 2020 population for Stanhope was 3,526, a 2.32-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 3.5-percent of the population is 5 years of age or younger, 1.9-percent is 65 years of age or older, 0-percent is non-English speaking, 0.4-percent is below the poverty threshold, and 1.9-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level, but earn less than the basic cost of living as socially vulnerable. For the Borough of Stanhop, 24-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 21.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Stanhope performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Stanhope to identify opportunities for integrating mitigation concepts into ongoing Borough procedures.

### 21.3.1 Planning and Regulatory Capability and Integration

Table 21-2 summarizes the planning and regulatory tools that are available to Stanhope.



Table 21-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	Chapter 72: Construction Codes, Uniform	State	Construction Official
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The State Uniform Construction Code, building subcode, is hereby adopted and incorporated as fully as if set forth at length herein. The provisions shall be controlling in the construction, alteration, renovation, rehabilitation, maintenance, occupancy, and use of all buildings and structures therein contained within the corporate limits of the Borough. The Construction Official is the chief administrator of the enforcing agency.</i></p>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 100: Land Development	Local	Land Use Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.</i></p>				
<b>Subdivision Code</b>	Yes	Chapter 100: Land Development, Article 6: Subdivision and Site Plan Review	Local	Land Use Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.</i></p>				
<b>Site Plan Code</b>	Yes	Chapter 100: Land Development, Article 6: Subdivision and Site Plan Review	Local	Land Use Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Approval of a site plan by the Land Use Board is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.</i></p>				
<b>Stormwater Management Code</b>	Yes	Chapter 100: Land Development, Article 18: Design Standards, Section 126: Drainage and Stormwater Management	Local	Land Use Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.</i></p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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- *Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*

<b>Growth Management</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 12: Environmental Commission; Chapter 90: Hazardous Materials	State, Federal	Environmental Commission, Fire Department
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How has or will this be integrated with the HMP and how does this reduce risk?

- *Chapter 12 Environmental Commission: creates the Environmental Commission and defines its responsibilities.*
- *Chapter 90 Hazardous Materials: This chapter identified which parties may be held responsible for the supplies, material and other types of response expenses associated with a hazardous materials incident.*

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 100: Land Development, Article 21: Flood Damage Prevention	Local	Construction Official
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How has or will this be integrated with the HMP and how does this reduce risk?

*It is the purpose of this article to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:*

- *A. Protect human life and health;*
- *B. Minimize expenditure of public money for costly flood-control projects;*
- *C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;*
- *D. Minimize prolonged business interruptions;*
- *E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard;*
- *F. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;*
- *G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and*
- *H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*

*In order to accomplish its purposes, this article includes methods and provisions for:*

- *A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards or which result in damaging increases in erosion or in flood heights or velocities;*
- *B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;*
- *C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;*
- *D. Controlling filling, grading, dredging, and other development which may increase flood damage; and*
- *E. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.*

<b>Wellhead Protection</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

<b>Emergency Management Ordinance</b>	Yes	Chapter 13	Local	Emergency Management Coordinator
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How has or will this be integrated with the HMP and how does this reduce risk?





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Climate Change Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	Stanhope Master Plan, 2019	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Since its incorporation in 1904, the Borough of Stanhope has remained a small community in both area and population and has experienced little change in character. However, the spreading out of metropolitan areas, increased transportation, and the continuing disappearance of vacant land in other areas is sparking a transition in many communities. With this change and growth come problems with schools, sewerage facilities, and roads must be improved to meet the surge of new business, industry, and residents. In recognition for new building which are likely to be built, Borough officials prepared this master plan.</i>				
<b>Capital Improvement Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	Yes	Stormwater Management Plan, February 2005	Local	Borough Engineer
How has or will this be integrated with the HMP and how does this reduce risk? <i>The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. The plan also addresses the review and update of existing ordinances and other planning documents to allow for project designs that include low impact development techniques. The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought.</i>				
<b>Stormwater Pollution Prevention Plan</b>	Yes	Stormwater Pollution Prevention Plan, October 2020	Local	Borough Engineer
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Stormwater Pollution Prevention Plan is used to identify all potential pollution sources that could come into contact with stormwater leaving a site.</i>				
<b>Open Space Plan</b>	Yes	Stanhope Master Plan, 2019	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<i>Population growth is inevitable; therefore, residents must be educated on future population trends and current open space lands which should be preserved. This study will offer population data and an inventory of current open space and recreational lands.</i>				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	Yes	Community Forest Management Plan, 2018	Local	Shade Tree Commission
How has or will this be integrated with the HMP and how does this reduce risk? <i>The objectives in this five-year plan address street trees, park trees, and trees on other public grounds. Future plans will build on the successes of this plan and follow up on goals not attained during this planning period. The objectives and timeline for completion outlined in this plan are dependent on the availability of funding and will be altered from time-to-time to ensure there is no negative impact on the day-to-day operations of the Borough.</i>				
<b>Transportation Plan</b>	Yes	Stanhope Master Plan, 2019	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Circulation Plan Element provides an inventory of existing roads and examines jurisdiction, function, and high accident locations. The Plan then provides recommendations for the creation of a more in-depth examination of circulation, including level of service surveys of existing roadways and examining current problem traffic areas as well as potential future problem areas considering the proposed development and redevelopment outlined in this Plan. This proposed Circulation Plan would result in a capital improvement program to provide for needed traffic improvements, which could take place through the redevelopment process. Finally, recommendations for alternative transportation, including bike paths and transit services, are provided.</i>				
<b>Agriculture Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Borough of Stanhope EOP, 2023	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Operations Plan aims to assess the Borough's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 21.3.2 Development and Permitting Capability

Table 21-3 summarizes the capabilities of Stanhope to oversee and track development.



Table 21-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	Building Department
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain Development Permits
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	-
Describe the level of buildout in your jurisdiction.	N/A	The Borough has limited space for future development due to constraints from the Highlands Commission, including open water buffers, flood prone areas, and steep slopes.

### 21.3.3 Administrative and Technical Capability

Table 21-4 summarizes potential staff and personnel resources available to Stanhope and their current responsibilities that contribute to hazard mitigation.

Table 21-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Mayor and Council and Land Use Board shall adopt and may amend reasonable rules and regulations, not inconsistent with the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., or this chapter, for the administration of their functions, powers and duties and shall furnish a copy thereof to any person upon request and may charge a reasonable fee, as established by the rules of each Borough agency, for such copy.
Zoning Board of Adjustment	Yes	The Mayor and Council and Land Use Board shall adopt and may amend reasonable rules and regulations, not inconsistent with the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., or this chapter, for the administration of their functions, powers and duties and shall furnish a copy thereof to any person upon request and may charge a reasonable fee, as established by the rules of each Borough agency, for such copy.
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	The Commission consists of seven (7) members appointed by the Mayor, one (1) must be a member of the Planning Board, and all are residents of the Borough of Stanhope. The Commission is tasked with promoting the conservation



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		and development of the environmental quality of Stanhope; planning, implementing and informing the public about local conservation programs; compiling and keeping an index of all open areas, publicly or privately owned, including open marshland, swamps and other wetlands; conducting research into the possible use of the open area and preservation or protection of its resources, including air and water; recommending to and advising the Planning Board as to plans and programs for the development and use of such areas; advertising, preparing, printing and distributing books, maps, charts, plans and pamphlets which, in its judgment, it deems necessary for the purposes contained herein; managing donated or purchased lands for conservation purposes and operating conservation programs; acting as the coordinating agency of the community on conservation matters and a liaison between local conservation needs and regional, state and federal agencies ministering to those needs; and adopting bylaws governing its procedural operations.
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	The Commission is advisory to the Borough Council and the Borough Administrator and must consist of not less than five (5) nor more than nine (9) members. The Commission is tasked with the development of plans and programs to encourage the expansion and the strengthening of existing business and commercial enterprises; the development of plans and programs which will attract new business and commercial enterprises; the investigation, analysis and submission of regular reports to the Borough Council and to the Administrator on any obstacles to the expansion of the industrial and commercial tax base; making of recommendations to the Borough Council and to the Administrator; liaise with the Sussex County Economic Development Commission and the Office of Economic Development; and participate in appropriate county and regional economic development activities.
Public Works/Highway Department	Yes	The Department of Public Works is overseen by the Department Superintendent. The Department offers programs such as leaf collection, brush pick-up, shares annual water quality reports, and implements stormwater pollution prevention initiatives.
Construction/Building/Code Enforcement Department	Yes	The Construction Department issues permits and conducts inspections by appointment.
Emergency Management/Public Safety Department	Yes	The Mayor and Council and Land Use Board shall adopt and may amend reasonable rules and regulations, not inconsistent with the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., or this chapter, for the administration of their functions, powers and duties and shall furnish a copy thereof to any person upon request and may charge a reasonable fee, as established by the rules of each Borough agency, for such copy.



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Risk Management Consultant. The Department of Public Works offers programs such as leaf collection and brush pick-up.
Mutual aid agreements	Yes	Fire Department
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	No job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk.
Other: Shade Tree Commission	Yes	The Shade Tree Commission is charged with maintaining a healthy and safe community forest resource. Good management of our community forest will improve our air and water quality, reduce energy costs, increase property values, improve the health of our residents, and beautifies our Borough. The Shade Tree Commission enforces the Borough's tree removal and tree replacement Ordinances.
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Borough Engineer / Planner
Engineers or professionals trained in building or infrastructure construction practices	Yes	Borough Engineer / Construction Official
Planners or engineers with an understanding of natural hazards	Yes	Borough Engineer
Staff with expertise or training in benefit/cost analysis	No	Chief Financial Officer
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Borough Engineer / Planner
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	Borough Engineer's Office
Emergency manager	Yes	Emergency Management Coordinator
Grant writers	Yes	Millennium Strategies
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 21.3.4 Fiscal Capability

Table 21-5 summarizes financial resources available to Stanhope.





Table 21-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 21.3.5 Education and Outreach Capability

Table 21-6 summarizes the education and outreach resources available to Stanhope.

Table 21-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Borough Council
Personnel skilled or trained in website development	Yes	Contracted
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Nixle Text Messaging System
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Borough website and social media

### 21.3.6 Community Classifications

Table 21-7 summarizes classifications for community programs available to Stanhope.



Table 21-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	Not certified	Joined program on September 14, 2010
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 21.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 21-8 summarizes the adaptive capacity for each identified hazard of concern and the Borough’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 21-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate



## 21.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 21-1 is responsible for maintaining this information.

### 21.4.1 NFIP Statistics

Table 21-9 summarizes the NFIP policy and claim statistics for Stanhope.

Table 21-9. Stanhope NFIP Summary of Policy and Claim Statistics

# Policies	3
# Claims (Losses)	2
Total Loss Payments	\$16,257.13
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

*Source: FEMA Region II 2024*

### 21.4.2 Flood Vulnerability Summary

Table 21-10 provides a summary of the NFIP program in Stanhope.

Table 21-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Borough occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction?	No



NFIP Topic	Comments
If so, state what projects are underway.	
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Borough Engineer / Public Works
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes – federal, state, and regional online resources
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No, but the FPA would attend training if needed.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review, engineering capability
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Staff and funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Unknown
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 100, Article 21
What is the date that your flood damage prevention ordinance was last amended?	May 24, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Planning and Zoning Boards consider efforts to reduce flood risk when reviewing variances such as height restrictions. The Borough has subdivision and site plan ordinances.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No



## 21.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 21-11 through Table 21-13.

Table 21-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 21-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There has been no recent major development or infrastructure between 2019 to present in the Borough.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 21-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There are no known or anticipated major development or infrastructure in the next five years in the Borough.					



## 21.6 JURISDICTIONAL RISK ASSESSMENT

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The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Stanhope's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 21.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Borough are shown in Figure 21-1 through Figure 21-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Stanhope has significant exposure. The maps show the location of potential new development, where available.



Figure 21-1. Stanhope Flood and Sinkhole Hazard Area Extent and Location Map

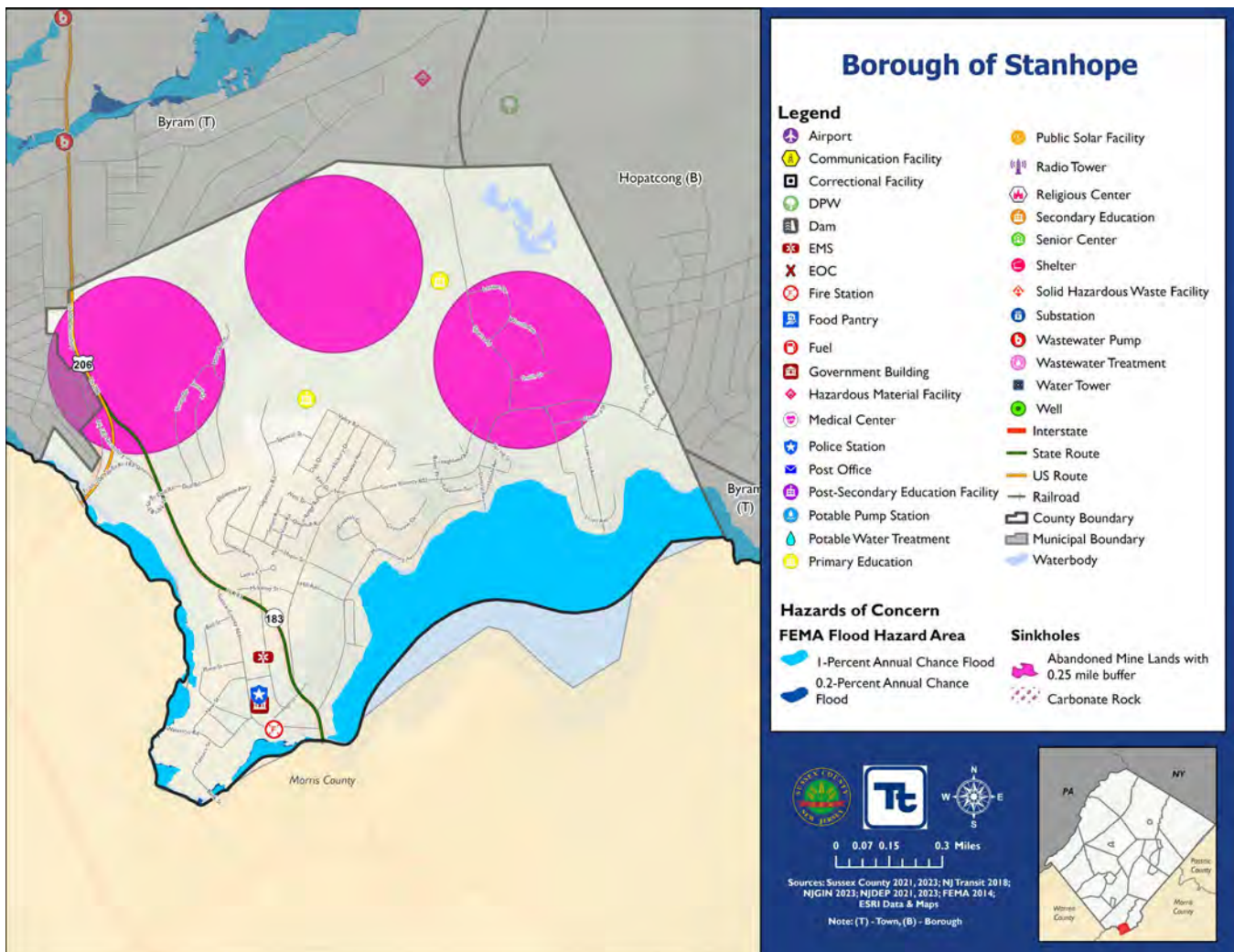


Figure 21-2. Stanhope Hazardous Materials and Wildfire Hazard Area Extent and Location Map

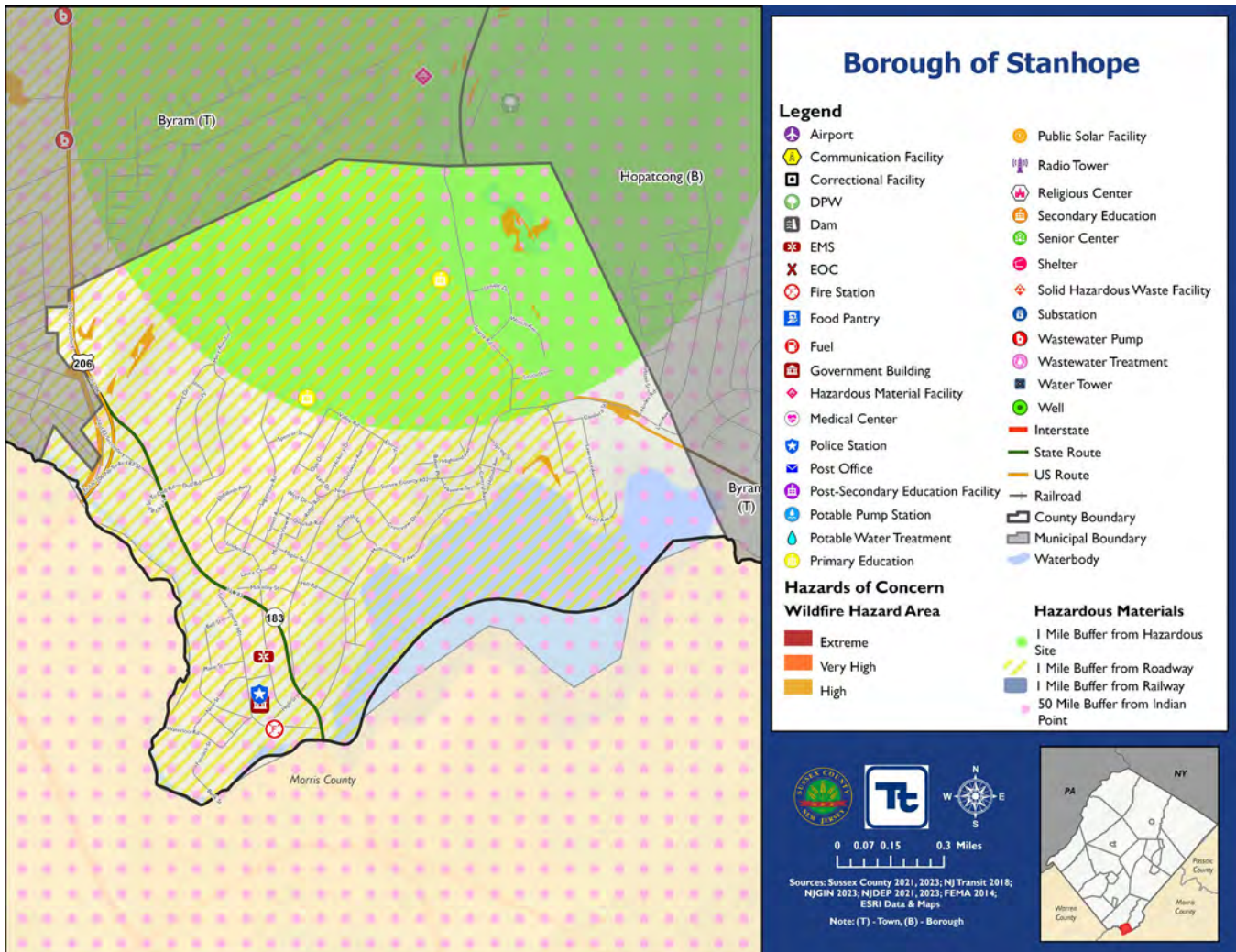
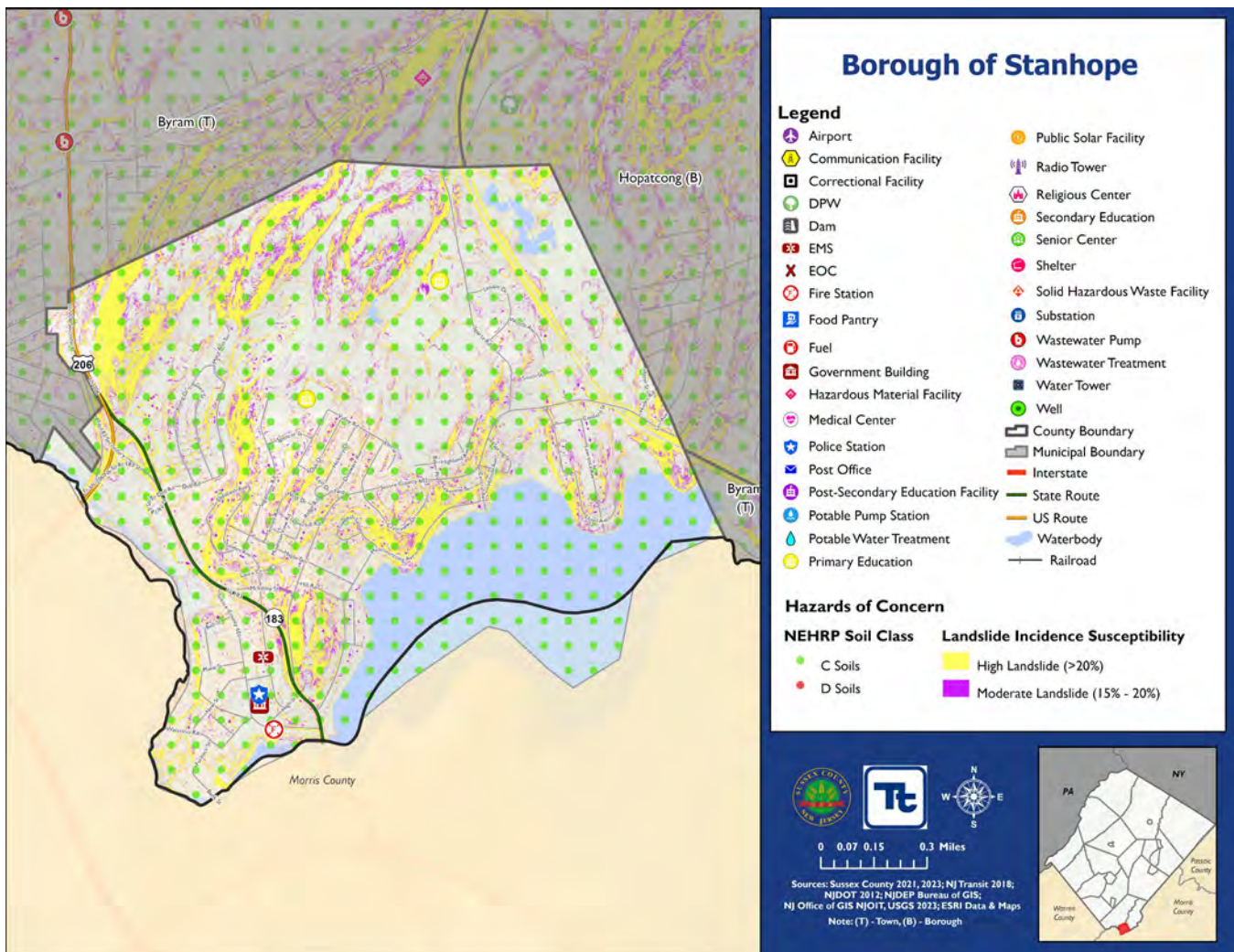




Figure 21-3. Stanhope Landslide and NEHRP Soils Hazard Area Extent and Location Map





## 21.6.2 Hazard Event History

The history of natural and non-natural hazard events in Stanhope is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 21-14 provides details on loss and damage in Stanhope during hazard events since the last hazard mitigation plan update.

Table 21-14. Hazard Event History in Stanhope

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Stanhope
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Borough implemented masking and social distancing mandates. Non-emergent personnel were permitted to work from home.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Downed trees and power lines. Public Works officials assisted in the clean-up on Borough maintained roadways and properties.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Heavy snowfall and high snow accumulations impacted the Borough. No damages or losses occurred to Borough property. Public Works officials assisted in the clean-up on Borough maintained roadways and properties.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Flash flooding resulted in road closures. Public Works officials assisted in the clean-up on Borough maintained roadways and properties.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 21.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Stanhope.



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Stanhope reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Borough indicated the hazard rankings were appropriate.

Table 21-15 shows Stanhope's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 21-15. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Low
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	Medium
Severe Weather	High
Severe Winter Weather	Medium
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 21-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 21-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
The Borough does not have any identified critical facilities located in the 1- or 0.2-percent annual chance floodplains.					



Source: NJGIN 2023; Sussex County 2021, 2023

## 21.6.4 Identified Issues

After review of Stanhope's hazard event history, hazard rankings, hazard location, and current capabilities, Stanhope identified the following vulnerabilities within the community:

- The Borough lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Borough. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.
- The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.
- The Borough does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Backup power sources are necessary to maintain critical services for critical facilities. There is no standby power at Lenape Valley Regional High School (8 Sparta Road) or Stanhope Public School (24 Valley Road). The schools are identified as sheltering locations within the Borough, which provide residents and those in need with a safe, secure location to evacuate to in case of an emergency.
- The flood damage prevention ordinance lacks the state's freeboard requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.

\* This issue was identified as a specific area of concern based on resident response to the Sussex County Hazard Mitigation Citizen survey.

## 21.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.





### 21.7.1 Past Mitigation Action Status

Table 21-17 indicates progress on the Borough's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 21.7.2 Additional Mitigation Efforts

Stanhope did not identify any additional mitigation efforts completed since the last HMP.



Table 21-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Stanhope-001	Generator for Lenape Valley Regional High School	Hurricane, Nor'easter, Severe Weather, Severe Winter Weather	Emergency Management, School District	<b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. There is no standby power at Lenape Valley Regional High School at 28 Sparta Road.  <b>Solution:</b> The Borough will work with Lenape Valley High School to purchase and install a 75-85 kW generator and necessary electrical components to supply backup power to the School.	1. No Progress 2. The Borough was not able to secure funding for this project	1. Include 2. Keep as is 3. Not applicable
2021-Stanhope-002	Generator for Stanhope School	Hurricane, Nor'easter, Severe Weather, Severe Winter Weather	Emergency Management, School District	<b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. There is no standby power at Stanhope Public School 24 Valley Road.  <b>Solution:</b> The Borough will work with the Stanhope School to purchase and install a 35-40 kW generator and necessary electrical components to supply backup power to the School.	1. No Progress 2. The Borough was not able to secure funding for this project	1. Include 2. Keep as is 3. Not applicable
2021-Stanhope-003	Disaster Debris Management Plan	Dam Failure, Drought, Earthquake, Flood, Geologic,	OEM, Administration	<b>Problem:</b> The Borough lacks a Disaster Debris Management Plan.  <b>Solution:</b> The Borough will develop and adopt a Disaster	1. No Progress 2. The Borough prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Hazardous Materials, Hurricane and Tropical Storm, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire		Debris Management Plan. The Plan will include any necessary mutual aid discussions to supplement the Borough's capabilities.		
2021-Stanhope-004	Flood Damage Prevention Ordinance Update	Flood	Floodplain administrated and Administration	<b>Problem:</b> The Borough's Flood Damage Prevention Ordinance lacks discussion of the state's one-foot freeboard requirement.  <b>Solution:</b> Borough will update the ordinance to include the state's freeboard requirement.	1. No Progress 2. The Borough prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



### 21.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Stanhope participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Stanhope would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Borough priorities.

Table 21-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 21-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 21-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X			X			X
Disease Outbreak		X		X			X			X
Drought		X		X			X			X
Earthquake	X	X		X			X			X
Flood	X	X		X	X		X			X
Geological Hazards	X	X		X			X			X
Hazardous Materials	X	X		X			X			X
Hurricane	X	X		X			X			X
Infestation				X			X			
Nor'easter	X	X		X			X			X
Severe Weather	X	X		X			X			X
Severe Winter Weather	X	X		X			X			X
Wildfire	X	X		X			X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 21-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-StanhopeB-01	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-StanhopeB-02	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-StanhopeB-03	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-StanhopeB-04	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-StanhopeB-05	Generators at Critical Facilities	1	1	0	1	1	0	0	1	1	1	0	1	1	0	9	Medium
2025-StanhopeB-06	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-StanhopeB-07	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).





## Action 2025-StanhopeB-01. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Building Department, Borough Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Borough lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available								
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-StanhopeB-02. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management										
<b>Supporting Agencies:</b>	Borough Administration, Sussex County										
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input checked="" type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>										
<b>Description of the Problem:</b>	The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Borough. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.										
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Borough events, the Borough newsletters, social media, the Borough website, and having the materials on display for the public at Borough libraries and offices. Consider hiring staff to work directly with socially vulnerable populations.										
<b>Estimated Cost:</b>	Low										
<b>Potential Funding Sources:</b>	Borough Budget, HMGP										
<b>Implementation Timeline:</b>	Within 3 years										
<b>Goals Met:</b>	1, 2, 3, 7										
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Borough. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.										
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Borough will become educated on hazards risks. The Borough will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.										
<b>Impact on Future Development:</b>	Not applicable										
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program.										
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.										
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)										
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1" style="width: 100%;"> <thead> <tr> <th>Action</th> <th>Evaluation</th> </tr> </thead> <tbody> <tr> <td>No action</td> <td>Current methods remain the only ones used</td> </tr> <tr> <td>Rely on state or federal resources</td> <td>Resources may be generalized and not specific to the risks in the Borough</td> </tr> <tr> <td>Use only a few methods for distribution</td> <td>Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance</td> </tr> </tbody> </table>			Action	Evaluation	No action	Current methods remain the only ones used	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
Action	Evaluation										
No action	Current methods remain the only ones used										
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough										
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance										



## Action 2025-StanhopeB-03. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Planning Board, Zoning Board, Borough Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.																
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.																
<b>Estimated Cost:</b>	Staff time, Low																
<b>Potential Funding Sources:</b>	Borough Budget																
<b>Implementation Timeline:</b>	Within 2 years																
<b>Goals Met:</b>	1, 2, 5																
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.																
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.																
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.																
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.																
<b>Impact on Capabilities:</b>	This action will create a new Borough capability, while enhancing its current NFIP capabilities.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Only share opportunities when notified of grant funding</td><td>May not be enough time to garner interest or write application</td></tr><tr><td>Wait for information from the State on flood-damaged properties</td><td>May be a delay in notice</td></tr></table>	Action	Evaluation	No action	Current problem remains	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	Wait for information from the State on flood-damaged properties	May be a delay in notice								
Action	Evaluation																
No action	Current problem remains																
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application																
Wait for information from the State on flood-damaged properties	May be a delay in notice																



## Action 2025-StanhopeB-04. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Engineering, Building Department, Borough Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Borough does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Borough staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Borough and assure the Borough's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Borough's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-StanhopeB-05. Generators at Critical Facilities

<b>Lead Agency:</b>	School District		
<b>Supporting Agencies:</b>	Engineering, Emergency Management		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	Backup power sources are necessary to maintain critical services for critical facilities. There is no standby power at Lenape Valley Regional High School (8 Sparta Road) or Stanhope Public School (24 Valley Road). The schools are identified as sheltering locations within the Borough, which provide residents and those in need with a safe, secure location to evacuate to in case of an emergency.		
<b>Description of the Solution:</b>	The Borough will work with Lenape Valley High School to purchase and install a 75-85 kW generator and necessary electrical components to supply backup power to the School. The Borough will work with the Stanhope School to purchase and install a 35-40 kW generator and necessary electrical components to supply backup power to the School.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5, 6, 7		
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	



## Action 2025-StanhopeB-06. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Building Department, Borough Administration, NFIP State Coordinator, FEMA Regional Office																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The flood damage prevention ordinance lacks the state's freeboard requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.																
<b>Description of the Solution:</b>	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	2, 5																
<b>Benefits:</b>	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.																
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.																
<b>Impact on Capabilities:</b>	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.																
<b>Climate Change Considerations:</b>	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem exists</td></tr><tr><td>Modify existing flood damage prevention ordinance</td><td>Time intensive</td></tr></table>	Action	Evaluation	No Action	Current problem exists	Modify existing flood damage prevention ordinance	Time intensive										
Action	Evaluation																
No Action	Current problem exists																
Modify existing flood damage prevention ordinance	Time intensive																





	Leave NFIP	Residents lose flood insurance coverage
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## Action 2025-StanhopeB-07. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials         </div> <div> <input checked="" type="checkbox"/> Hurricane  <input checked="" type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire         </div> </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP)         </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP)         </div> </div>		
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI)         </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES)         </div> </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## 22. TOWNSHIP OF STILLWATER

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Stillwater with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Stillwater, describes who participated in the planning process, assesses Stillwater's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 22.1 HAZARD MITIGATION PLANNING TEAM

The Township of Stillwater identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Emergency Management Coordinator, who is also the Township's Mayor, represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 22-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 22-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Lisa Chamblings / Mayor, OEM Address: 964 Stillwater Road, Newton, NJ 07860 Phone Number: (973) 903-3003 Email: lchamblings@stillwatertwp.com	Name/Title: Jim Cantelmno / Deputy EMC Address: 964 Stillwater Road, Newton, NJ 07860 Phone Number: 862 273 9104 Email: deputyOEM@stillwatertwp.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Tom Dixon / Zoning Official Address: 964 Stillwater Road, Newton, NJ 07860 Phone Number: (973) 383-9484 x 29 Email: zoning@stillwatertwp.com	
<b>Additional Contributors</b>	
Name/Title: Lisa Chamblings / Mayor, OEM Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved final draft annex.	
Name/Title: Jim Cantelmno / Deputy EMC Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Tom Dixon / Zoning Official Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved final draft annex.	
Name/Title: Michael Vreeland / Engineering Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Paul Hawkins / Former Public Works Acting Supervisor Method of Participation: Assisted in the completion of municipal worksheets.	



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Name/Title: Lynda Knott / Former Municipal Clerk

Method of Participation: Assisted in the completion of municipal worksheets.

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Name/Title: Richard Bizik, Jr. / Construction Official

Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved final draft annex.

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Name/Title: Valerie Ingles / Municipal Clerk

Method of Participation: Provided key information for the completion of this annex; reviewed and approved final draft annex.

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Name/Title: Jerry Leatham / Public Works Acting Supervisor

Method of Participation: Provided key information for the completion of this annex.

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Name/Title: Dawn Tighe / Technical Assistant to the Construction Official

Method of Participation: Reviewed and approved final draft annex.

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Name/Title: Joseph Funari / Recycling Coordinator

Method of Participation: Provided key information for the completion of this annex; reviewed and approved final draft annex.

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## 22.2 COMMUNITY PROFILE

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Stillwater Township is located in southwest Sussex County. It covers an area of 27.1 square miles and is bordered to the north by Sandyston Township, to the east by Frankford and Hampton Townships, to the south by Warren County, and to the west by Warren County and Walpack Township. The following unincorporated communities are located within the Township: Five Points, Swartswood, Paulinskill, Middleville, and Stillwater. There are many streams located throughout the Township and include: Blair Creek and its tributaries, Trout Brook and its tributaries, Swartswood Creek and its tributaries, Troy Brook and its tributaries, and Paulins Kill and its tributaries.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 1.5-percent of the population is 5 years of age or younger, 4.1-percent is 65 years of age or older, 0-percent is non-English speaking, 3.7-percent is below the poverty threshold, and 3.5-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Township of Stillwater, 25-percent of households earn less than the basic cost of living and are considered socially vulnerable.

## 22.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Stillwater performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities



- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Stillwater to identify opportunities for integrating mitigation concepts into ongoing Township procedures.

### 22.3.1 Planning and Regulatory Capability and Integration

Table 22-2 summarizes the planning and regulatory tools that are available to Stillwater.

Table 22-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	Chapter 240 – Land Development	Local	Construction Official
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The State Uniform Construction Code, building subcode, is hereby adopted and incorporated as fully as if set forth at length herein. The provisions shall be controlling in the construction, alteration, renovation, rehabilitation, maintenance, occupancy, and use of all buildings and structures therein contained within the corporate limits of the Township. The Construction Official is the chief administrator of the enforcing agency.</i></p>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 240, Article 11 – Land Development / Zoning	Local	Zoning Officer
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.</i></p>				
<b>Subdivision Code</b>	Yes	Chapter 240, Article 6 – Land Development / Subdivision and Site Plan Review and Approval	Local	Planning Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.</i></p>				
<b>Site Plan Code</b>	Yes	Chapter 240, Article 6 – Land Development / Subdivision and Site Plan Review and Approval	Local	Planning Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Approval of a site plan is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building,</i></p>				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.

<b>Stormwater Management Code</b>	Yes	Chapter 240-89 – Stormwater management	Local	Public Works
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How has or will this be integrated with the HMP and how does this reduce risk?

*It is the purpose of this chapter to establish minimum stormwater management requirements and controls for major development.*

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.

- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?

Not all provisions of this law have become effective at the time of the writing of this plan.

<b>Growth Management</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 253 Littering, Chapter 338 Soil Removal, Chapter 382 Trees, Chapter 400 Water, and Chapter 467 Water Supply	Local	Township Committee
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How has or will this be integrated with the HMP and how does this reduce risk?

- Chapter 253 Littering: This chapter identifies the Township's definition of litter and what repercussions an individual may face for littering.
- Chapter 338 Soil Removal: Requires permitting for the removal or spreading of soil and defines responsibilities for the care of the land, including the mitigation of potential runoff.
- Chapter 382 Trees: Restricts certain acts which may affect the trees, shrubbery or ornamental material planted or growing naturally within the highways or public places under the jurisdiction of the Township.
- Chapter 400 Water: Authorizes the Township to implement emergency water regulations.
- Chapter 467 Water Supply: Restricts the relocations, construction, or alteration of any water supply unless a permit is issued.

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 202 – Flood Damage Prevention (2020)	Local	Engineer
--	-----	--	-------	----------

How has or will this be integrated with the HMP and how does this reduce risk?

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- Protect human life and health;
- Minimize expenditure of public money for costly flood control projects;
- Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- Minimize prolonged business interruptions;
- Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;
- Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;
- Ensure that potential buyers are notified that property is in an area of special flood hazard; and
- Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Emergency Management Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Change Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	Master Plan 1999; Re-examined December 2006, November 2012, September 2022	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk?				
<p><i>The Master Plan guides the development of the physical environment in the Township. Stillwater Township adopted its last comprehensive Master Plan in 1999 and subsequent Reexamination Reports in December 2006 and most recently in November 2012. The following additional Master Plan Elements have been adopted:</i></p> <ul style="list-style-type: none"> <li>• Stormwater Management Plan (2005)</li> <li>• Open Space and Recreation Plan (2012)</li> <li>• Amended Land Use Plan (2012)</li> <li>• Environmental Resource Inventory (2014)</li> <li>• Amended Housing Element and Fair Share Plan (March 2016, amended August 2016)</li> </ul>				
<b>Capital Improvement Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Disaster Debris Management Plan</b>	Yes	Disaster Debris Management Plan, 2023	Local	Public Works
How has or will this be integrated with the HMP and how does this reduce risk?				
<p><i>The Disaster Debris Management Plan was recently updated in 2023. The plan establishes procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner.</i></p>				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Consider the following:				
<ul style="list-style-type: none"> <li>• Does the plan include policies that restrict development that would increase downstream flooding?</li> <li>• Does the plan include policies that restrict development that would increase sedimentation or erosion?</li> </ul>				
<b>Stormwater Management Plan</b>	Yes	Stormwater Management Plan, March 2005	Local	Engineering
How has or will this be integrated with the HMP and how does this reduce risk?				
<p><i>The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. The plan also</i></p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<i>addresses the review and update of existing ordinances and other planning documents to allow for project designs that include low impact development techniques. The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought.</i>				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	Yes	Open Space and Recreation Plan, January 2006	Local	Planning Board and Environmental Commission
How has or will this be integrated with the HMP and how does this reduce risk? <i>Based upon existing land use and input from the public regarding land conservation, the Open Space Advisory Committee has identified the specific preservation areas for Stillwater Township centered on farmland protection, wildlife habitat, historic landscapes, and trail connectivity. The Plan concludes with an Action Program and Recommendations describing the next steps in the implementation of an open space program. These steps include adoption of this Plan as an element of the Township's Master Plan and the establishment of a local Open Space Trust Fund for preservation of natural areas, farmland, and historic sites in the Township.</i>				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	Yes	Community Wildfire Protection Plan, 2006	Local	Plymouth Lake Association
How has or will this be integrated with the HMP and how does this reduce risk? The plan has goals to reduce the vulnerability of communities across the State to damage from wildfire, identify at risk wildland-urban interface areas, reduce excessive wildland fuel accumulations in and around areas of human development, increase community awareness of wildfire issues in New Jersey and promote opportunities to educate the public concerning the same, develop cohesive interagency wildfire risk reduction strategy, and develop partnerships to reduce the wildfire hazards.				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Transportation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Agriculture Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	Yes	Woodland Management Plan, multiple years	Local	Local municipalities and farmers
How has or will this be integrated with the HMP and how does this reduce risk?				
Farmers are required to have a Woodland Management Plan, which promotes the health of forested areas by dictating farmers must remove decaying, dead, or diseased trees. The actions from the plan assist in managing the wildfire risk.				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Stillwater Township Emergency Operations Plan, June 2023	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk?				
<i>The Emergency Operations Plan aims to assess the Township's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	Yes	Stillwater Township Emergency Operations Plan (ESF 14), June 2023	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk?				
<i>The Post-Disaster Recovery Plan, a portion of the Emergency Operations Plan, aims to assess the Township's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

## 22.3.2 Development and Permitting Capability

Table 22-3 summarizes the capabilities of Stillwater to oversee and track development.

Table 22-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	Building Department
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	-
Describe the level of buildout in your jurisdiction.	N/A	There is space for development in the Township. The Township has received several applications over the past decade with respect to minor subdivisions and lot line adjustments. However, the Township increased the minimum contiguous lot area in order to protect environmentally sensitive areas which may restrict further build out.

## 22.3.3 Administrative and Technical Capability

Table 22-4 summarizes potential staff and personnel resources available to Stillwater and their current responsibilities that contribute to hazard mitigation.

Table 22-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Planning Board has nine members with no more than two alternate members. The duties of the Board include, but are not limited to make and adopt, and from time to time amend, a Master Plan for the physical development of





Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		the Township and reexamine the Master Plan every 6 years; administer the provisions of the land subdivision and site plan review; hear applications for conditional uses and, in proper cases, to approve conditional use permits; participate in the preparation and review of programs or plans required by state or federal law or regulations; assemble data on a continuing basis as part of a continuous planning process; and annually prepare a program of municipal capital improvements projects projected over a term of six years, and amendments thereto, and recommend the same to the Township Committee.
Zoning Board of Adjustment	Yes	<p>The Stillwater Township Zoning Board of Adjustment consists of 7 Regular Board Members and two Alternate Board Members, who are appointed by the Township Committee.</p> <p>The Board reviews variance applications. The Board is advised by an attorney, an engineer and, when needed, other Professionals.</p> <p>The Zoning Board of Adjustment normally meets on the fourth Monday of the month.</p>
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	The Stillwater Township Environmental Commission is a nine-member (seven regular; two alternate members) 3-year term board that was established to promote the conservation and development of the Township's natural resources, to provide the impetus and take leadership in natural resources planning and to inform the public about local conservation programs and the need for conserving the natural resources of the Township.
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	The Economic Development Commission shall consist of seven members appointed by the Township Committee. Of the original appointees, one member shall be appointed for one year, one member for two years, one member for three years, two members for four years and two members for five years. At the expiration of each of the above terms, the new member or members shall be appointed for terms of five years. The Economic Development Commission has the following powers and duties: to inquire into, survey and publicize the extent, advantages, and utility of vacant land within the Township; classify such vacant land according to its adaptability for the settlement thereon of various types of business, professional, and industrial enterprise; study and analyze various businesses, industries, and professions with a view to ascertaining the opportunities for expansion of such business, industries, and professions within the Township; and recommend to the Township Committee advertising the economic advantages and



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		opportunities and availability of real estate in the Township, and to encourage and accomplish business, industrial and professional settlement within the Township.
Public Works/Highway Department	Yes	The Department of Public Works takes charge of and be responsible for the operation and maintenance of all public buildings, grounds, streets, roads, parks, storm sewers and other public facilities; the cutting of brush, mowing of grass and removal of snow; the cleaning of ditches, operation of the Recycling Center and recycling program, the performance of such other duties as may be directed by the Township Committee and the care of all other public works in the Township.
Construction/Building/Code Enforcement Department	Yes	The Building Department is in charge of performing inspections, issuing building and construction permits, assisting with construction applications and forms, and implementing the Uniform Construction Code.
Emergency Management/Public Safety Department	Yes	<p>The municipality has an emergency management coordinator who interacts at the local level with police, fire, EMS, public works, public health, schools, etc.</p> <p>The OEM also assists in preparing for and carrying out all emergency functions in emergency management</p>
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	The Department of Public Works takes charge of and be responsible for the operation and maintenance of all public buildings, grounds, streets, roads, parks, storm sewers and other public facilities; the cutting of brush, mowing of grass and removal of snow; the cleaning of ditches, operation of the Recycling Center and recycling program, the performance of such other duties as may be directed by the Township Committee and the care of all other public works in the Township.
Mutual aid agreements	.Yes	Mutual aid agreement with surrounding municipalities for emergency responses
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	The Township has a human resource manual, but there are no job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk.
Other: Board of Recreation Commissioners	Yes	<p>The Board of Recreation Commissioners shall consist of seven members, who shall be designated Commissioners, and two alternate members, who shall be designated as Alternate No. 1 and Alternate No. 2, all of whom shall be residents of the Township and shall be appointed in the manner prescribed by N.J.S.A. 40:12-1 and 40:12-1.1. All appointments shall be for a term of five years and shall be so staggered that the term of at least one Commissioner, and not more than two Commissioners, shall expire in each year.</p> <p>Commissioners shall formulate plans for the development and improvement of the public park and playground lands now or hereafter owned by the Township; propose methods or arrangements for the proper maintenance and</p>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		care of such lands and the improvement thereof; formulate rules and regulations for the public use of park and playground lands and improvement thereof; determine annually what sums may be necessary for the improvement, care and maintenance of the public park and playground lands within the Township; and recommend to the Township Committee, in writing, the amounts necessary to be raised for that purpose.
Other: Green Acres Advisory Committee	Yes	The Committee shall consist of one member of the Township Committee, one member of the Planning Board, one member of the Zoning Board of Adjustment, one member of the Stillwater Board of Education, one member of the Environmental Commission, one member of the Recreation Commission, one male member of the public, one female member of the public and one senior citizen. The Green Acres Advisory Committee will recommend proposed uses for lands owned by the Township, purchased wholly or in part with Green Acres funds; make recommendations for the physical development of the land so as to make them suitable for recreational or other Township purposes; prepare and recommend to the Planning Board a Master Plan for the development of such Green Acres properties; and advise the Township Committee of its activities and perform such other functions as may from time to time be delegated to the Committee by the Township Committee.

**TECHNICAL/STAFFING CAPABILITY**

Planners or engineers with knowledge of land development and land management practices	Yes	Professional contract
Engineers or professionals trained in building or infrastructure construction practices	Yes	Professional contract
Planners or engineers with an understanding of natural hazards	Yes	Professional contract
Staff with expertise or training in benefit/cost analysis	Yes	CFO
Professionals trained in conducting damage assessments	Yes	Township Engineer
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Township Engineer
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Police Chief is the EMC
Grant writers	No	-



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<i>Consider the following:</i> Are data and maps from the HMP used to support documentation in grant applications?		
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 22.3.4 Fiscal Capability

Table 22-5 summarizes financial resources available to Stillwater.

Table 22-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	No
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 22.3.5 Education and Outreach Capability

Table 22-6 summarizes the education and outreach resources available to Stillwater.

Table 22-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Township Committee
Personnel skilled or trained in website development	Yes	Contracted
Hazard mitigation information available on your website	Yes	Under the Emergency Management tab on the website, the plan is described in part.



Outreach Resources	Available? (Yes/No)	Comment
Social media for hazard mitigation education and outreach	Yes	The municipal website and Facebook page are used to reach out to residents during emergencies as well as during times to help prepare in case needs become present.
Citizen boards or commissions that address issues related to hazard mitigation	Yes	The Township has a CERT team that assists as needed during emergencies as well as during non-emergencies to help educate our residents.
Warning systems for hazard events	Yes	Swift911, Fire whistle. The County is switching from Swift911 to Regroup.
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	The Township partners with organizations such as Northwest New Jersey Community Action Program (Norwescap), Project Self-Sufficiency, Project Sussex Kids, and Senior Guidance. These organizations assist the Township in performing outreach for economic and employment building, nutrition and healthy living, child and family development, housing, low-income individuals and families, and seniors.
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	CERT Team as well as the Public Safety committee.

### 22.3.6 Community Classifications

Table 22-7 summarizes classifications for community programs available to Stillwater.

Table 22-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	4.4	2009; currently being updated
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	04/4X	July 1, 2014
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	Yes – Lake Plymouth Community Association	N/A	2006
New Jersey Sustainable Jersey Community	Yes	Not certified	Joined program on July 19, 2011
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable



— = Unavailable

### 22.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 22-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 22-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

## 22.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 22-1 is responsible for maintaining this information.

### 22.4.1 NFIP Statistics

Table 22-9 summarizes the NFIP policy and claim statistics for Stillwater.

Table 22-9. Stillwater NFIP Summary of Policy and Claim Statistics

# Policies	5
# Claims (Losses)	5





Total Loss Payments	\$87,322.80
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

*Source: FEMA Region II 2024*

## 22.4.2 Flood Vulnerability Summary

Table 22-10 provides a summary of the NFIP program in Stillwater.

Table 22-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	West End Drive is prone to flooding after heavy rain events. Two houses on the road have been repetitively flooded.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Zoning and Construction





NFIP Topic	Comments
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes – online federal, state, and regional resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA does not feel adequately supported or trained to fulfill his responsibilities as the municipal floodplain administrator. The FPA indicated that he would consider attending continuing education and certification training if offered in the county.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review, outreach, inspection, corresponds with engineering on applicable projects.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Reviewed by construction department and tax assessor.
What are the barriers to running an effective NFIP program in the community, if any?	Funding and staffing.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	January 27, 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 202 – Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	August 2, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Planning and Zoning Boards consider efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has subdivision and site plan ordinances.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 22.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 22-11 through Table 22-13.

Table 22-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2019				



	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Total Permits	3	0	0	3
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	2	0	0	2
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	2	0	0	2
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	2	0	0	2
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	1	0	0	1
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 22-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
The Township indicated there has been no major development or infrastructure between 2019 and present day.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 22-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
The Township indicated there are no known or anticipated major development or infrastructure in the next five years.					

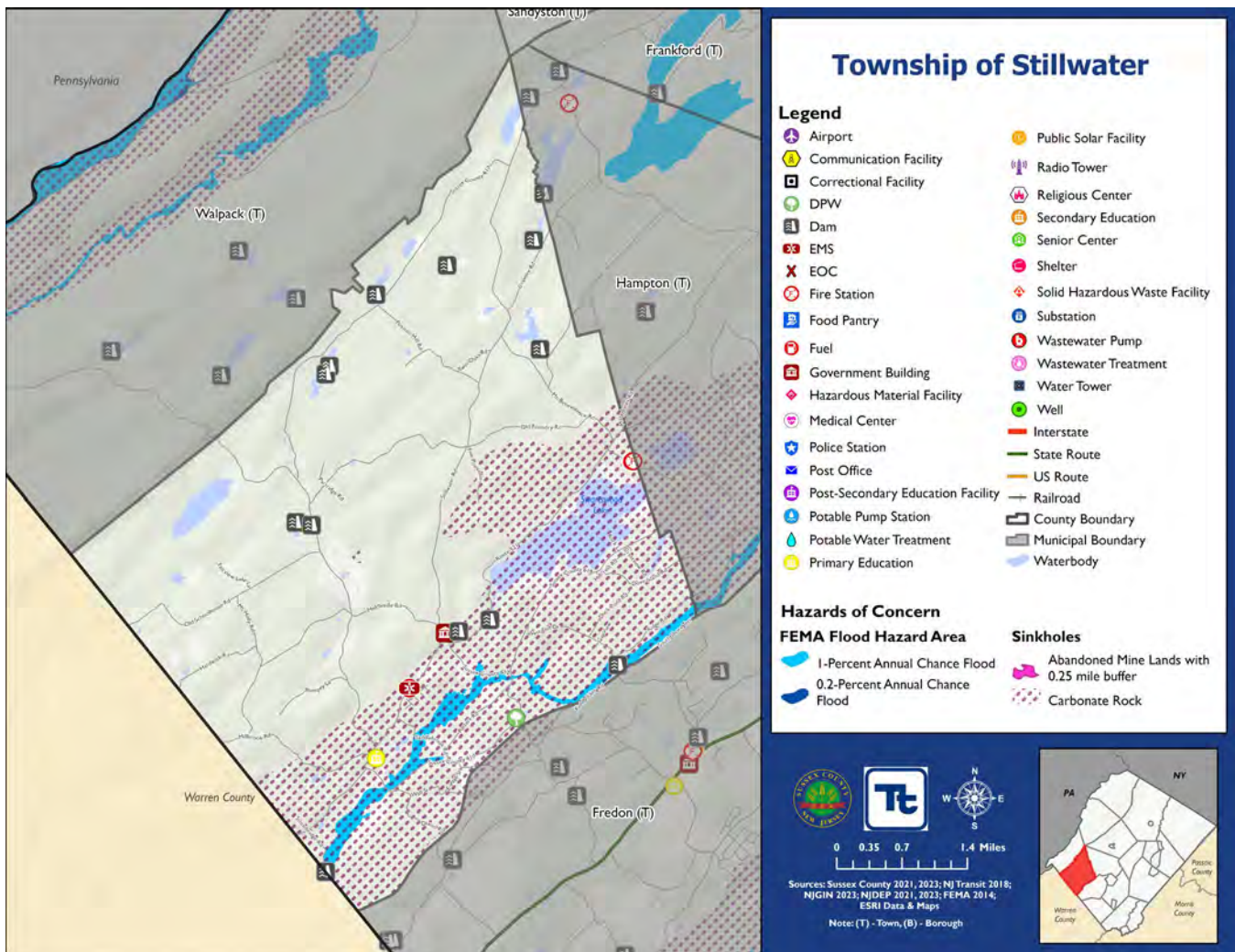
## 22.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Stillwater's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

## 22.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 22-1 through Figure 22-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Stillwater has significant exposure. The maps show the location of potential new development, where available.

Figure 22-1. Stillwater Flood and Sinkhole Hazard Area Extent and Location Map







**Township of Stillwater**

**Legend**

- Airport
- Communication Facility
- Correctional Facility
- DPW
- Dam
- EMS
- EOC
- Fire Station
- Food Pantry
- Fuel
- Government Building
- Hazardous Material Facility
- Medical Center
- Police Station
- Post Office
- Post-Secondary Education Facility
- Potable Pump Station
- Potable Water Treatment
- Primary Education
- Public Solar Facility
- Radio Tower
- Religious Center
- Secondary Education
- Senior Center
- Shelter
- Solid Hazardous Waste Facility
- Substation
- Wastewater Pump
- Wastewater Treatment
- Water Tower
- Well
- Interstate
- State Route
- US Route
- Railroad
- County Boundary
- Municipal Boundary
- Waterbody

**Hazards of Concern**

**Wildfire Hazard Area**

- Extreme
- Very High
- High

**Hazardous Materials**

- 1 Mile Buffer from Hazardous Site
- 1 Mile Buffer from Roadway
- 1 Mile Buffer from Railway
- 50 Mile Buffer from Indian Point

**Map Details:**

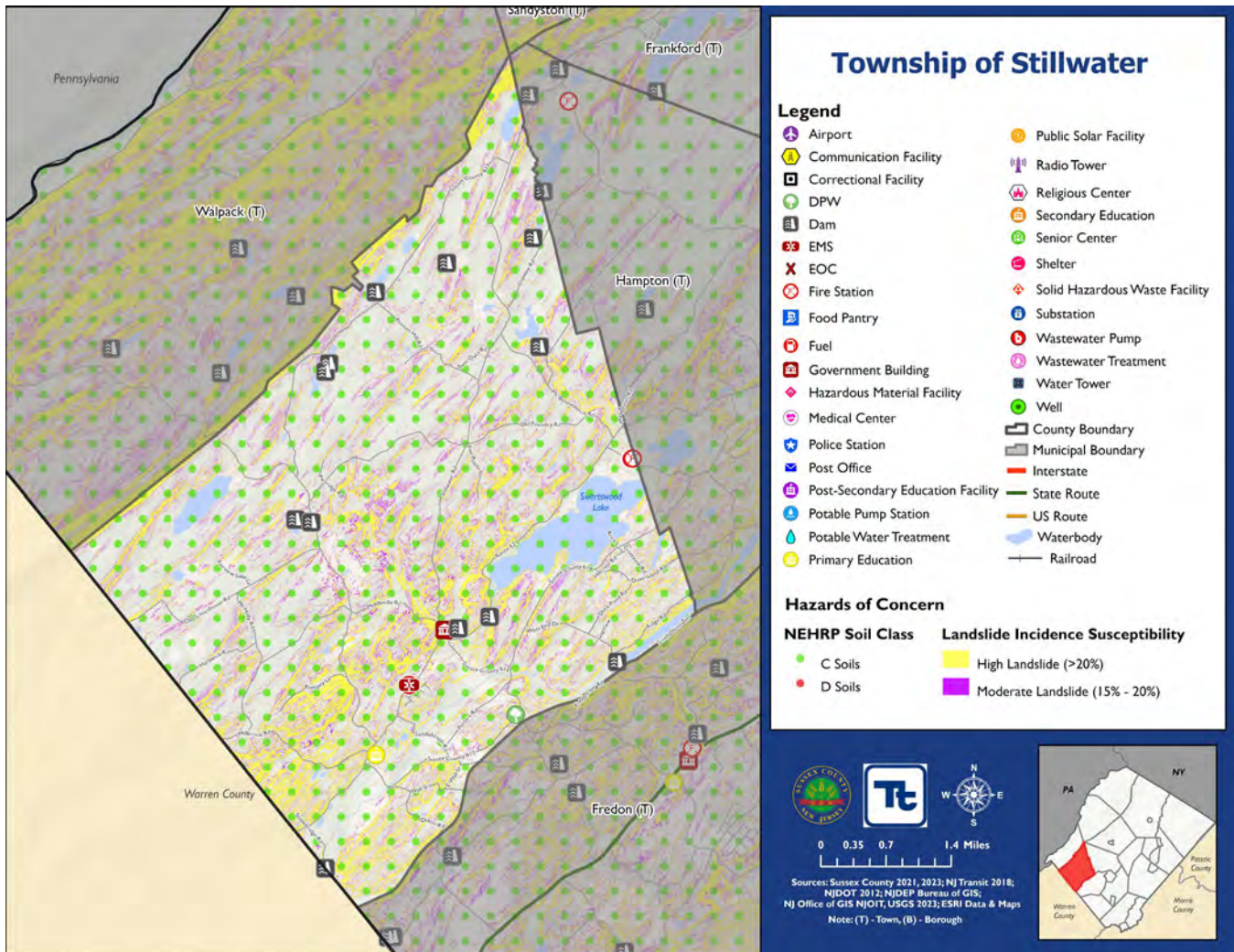
- Scale: 0 to 1.4 Miles
- North Arrow
- Inset Map: Sussex County, NJ, showing the location of Township of Stillwater (highlighted in red).
- Neighboring Townships: Walpack (NJ), Sandyston (NJ), Frankford (NJ), Hampton (NJ), Fredon (NJ), Warren County, Morris County, and Passaic County.

**Sources:** Sussex County 2021, 2023; NJ Transit 2018; NJGIN 2023; NJDEP 2021, 2023; FEMA 2014; ESRI Data & Maps

**Note:** (T) - Town, (B) - Borough



Figure 22-3. Stillwater Landslide and NEHRP Soils Hazard Area Extent and Location Map







## 22.6.2 Hazard Event History

The history of natural and non-natural hazard events in Stillwater is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 22-14 provides details on loss and damage in Stillwater during hazard events since the last hazard mitigation plan update.

Table 22-14. Hazard Event History in Stillwater

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Stillwater
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Township enforced required mandates and social distancing.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	As a result of the storm, the Township experienced downed trees and wires, township-wide power outages, minor flooding in lower lying areas. The Township Public Works responded to the storm. FEMA funds were received via Public Assistance
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Township Public Works was out maintaining roadways during the storm; a few road ways were closed due to storm-related impacts. The Township experienced power outages due to heavy wires, and a few downed trees. FEMA funds were received via Public Assistance.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	As a result of the storm, the Township experienced downed trees and wires, township-wide power outages, minor flooding in lower lying areas. The Township Public Works responded to the storm. FEMA funds were received via Public Assistance

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable



### 22.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Stillwater .

#### Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Stillwater reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the following:

- Due to large amounts of undergrowth in the Township, which increases its vulnerability to wildfire, the hazard rank was increased from 'Medium' to 'High'.
- Due to the high number of invasive species in the Township, which impacts the growth of trees and the performance of wetlands, the hazard rank was increased from 'Low' to 'Medium'.

Table 22-15 shows Stillwater's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 22-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Medium
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	High

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

#### Critical Facilities

Table 22-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.



Table 22-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
County Line Dam	Dam	Yes	Yes	2025-StillwaterTwp-06, 2025-StillwaterTwp-07	-
J.A. Little Farm Pond Dam	Dam	Yes	Yes	2025-StillwaterTwp-06, 2025-StillwaterTwp-07	-
Paulinskill Lake Dam	Dam	Yes	Yes	2025-StillwaterTwp-06, 2025-StillwaterTwp-07	-

Source: NJGIN 2023; Sussex County 2021, 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Stillwater:

- Willow Crest Dam

## 22.6.4 Identified Issues

After review of Stillwater's hazard event history, hazard rankings, hazard location, and current capabilities, Stillwater identified the following vulnerabilities within the community:

- Dams in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.
- The Township is not aware of socially vulnerable populations in their community. The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Township. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has three critical facilities located in the floodplain including the County Line Dam, J.A. Little Farm Pond Dam, and Paulinskill Lake Dam.
- The County Line Dam, J.A. Little Farm Pond Dam, and Paulinskill Lake Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has a high-hazard potential dam,



the Willow Crest Dam, within its jurisdiction. These structures have the potential to impact those living nearby.

- Kohlbocker Road is eroding and is beginning to cause the collapse of the roadway along the bank of the stream. The elevation is relatively high as well. This road is an ingress and egress to a large lake community within Stillwater and Hampton Township. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- The Township's Flood Damage Prevention Ordinance lacks language to include the state mandated freeboard requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.
- Duck Pond Road is an area that floods during times of moderate to heavy rainfall over extended periods of time. Residents and emergency services often lose ingress or egress through this roadway during moderate to heavy extended periods of rain. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- Several specific areas of the Township continually have trees coming down across roadways which consequently take down power lines. The DPW can do small jobs but not jobs of large trees near power and other utility lines. JCPL only maintains certain distances from their lines. Other utilities only do reactive vegetative management rather than preventative mitigation. Having the financial resources to have properly equipped and insured Tree Removal companies remove trees within the Township Road ROW's would be extremely beneficial to mitigating against power outages both long and short term in length.
- Wildfire risk exists in the Township. Drought and wildfire go hand in hand in Stillwater Township. As droughts or extended dry periods never classified as droughts occur, the undergrowth gets overly dry. Invasive species have caused forested areas to die out and leave large undergrowth areas that are getting thicker and harder to manage.
- Lower Crandon Lakes has only one ingress/egress bridge which would strand approximately 30 homes if the bridge were to be inoperable. Failure of bridges or causeways could result in loss to life and limitations to emergency access.
- Fire Department (931 Newton-Swartswood Rd) is a shelter, the generator does not have the capacity to power the facility. This shelter is located in close proximity to socially vulnerable populations, who would utilize this facility as a safe, secure location to evacuate to in case of an emergency.
- The Township was recently upgraded to a Tier A stormwater management permit, which it is required to follow. The Township must re-examine and provide locations for all its culverts. Heavy rains can overwhelm culverts, making the need to identify their locations and the areas which may be impacted from flooding events necessary in order to reduce risk.
- The Emergency Operations Center at 931 Swartswood Road requires a roof replacement to meet high wind standards and maintain continuity of operations. The facility has multiple uses for the base of operations for Emergency Management, as a sheltering location, and as a community center. The facility is supported by a backup generator. High wind associated with severe winter weather, severe weather, hurricanes, and nor'easters have the potential to damage the roof, which may cause injury to the individuals inside of the building.



- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- Willow Crest Dam is a Class I High Hazard Dam that is located on Willow Crest Lake. The dam is owned by the New Jersey Division of Parks and Forestry. Failure of the dam could result in inundation of populated areas, forested areas, recreational areas, and local roadways including Old Tannery Road and Mt. Benevolence Road. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 22.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 22.7.1 Past Mitigation Action Status

Table 22-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 22.7.2 Additional Mitigation Efforts

Stillwater did not identify any additional mitigation efforts completed since the last HMP.



Table 22-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Stillwater-001	Emergency Operations Center Roof	Hurricane, Nor'easter, Severe Weather, Severe Winter Weather	Engineer, OEM	<b>Problem:</b> The Emergency Operations Center at 931 Swartswood Road requires a roof replacement to meet high wind standards and maintain continuity of operations. The facility has multiple uses for the base of operations for Emergency Management, as a sheltering location, and as a community center. The facility is supported by a backup generator.  <b>Solution:</b> The Township Engineer will determine the necessary high wind design standards and costs of a new roof. The Township will then install the new roof.	1. Complete 2. ARPA funds permitted this action to be completed for a total of \$130,000.	1. Discontinue 2. Not Applicable 3. ARPA funds permitted this action to be completed for a total of \$130,000.
2021-Stillwater-002	Kohlbocker Road	Severe Weather, Flood	Engineer, DPW	<b>Problem:</b> Kohlbocker Road is eroding and is beginning to cause the collapse of the roadway along the bank of the stream. The elevation is relatively high as well. This road is an ingress and egress to a large lake community within Stillwater and Hampton Township.	1. No Progress 2. Funding restrictions have caused this action to be delayed.	1. Include 2. Should be '... within Stillwater and Fredon Township'. 3. Not Applicable





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<b>Solution:</b> The Township Engineer will design a means of correcting and fixing this issue. This is an extensive process that would need plan design, and NJDEP permits.		
2021-Stillwater-003	Flood Damage Prevention Ordinance Update	Flood	Administration	<p><b>Problem:</b> The Township's Flood Damage Prevention Ordinance lacks language to include the state mandated freeboard requirement.</p> <p><b>Solution:</b> The Township will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement.</p>	<p>1. No Progress</p> <p>2. Township priorities have prevented this action from being complete. The zoning official and engineers are prepared to update the ordinance.</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. Not Applicable</p>
2021-Stillwater-004	Duck Pond Road	Flood	Engineer, DPW	<p><b>Problem:</b> Duck Pond Road is an area that floods during times of moderate to heavy rainfall over extended periods of time. Residents and emergency services often loose ingress or egress through this roadway during moderate to heavy extended periods of rain.</p> <p><b>Solution:</b> The Engineer will determine the elevation needed to reduce flooding on the roadway and maintain access. Public works will then carry out the elevation design.</p>	<p>1. In Progress</p> <p>2. The engineer examined the road to confirm project feasibility. The project will continue to move forward, given funding is available.</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. Not Applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Stillwater-005	Vegetation Management	Hurricane/Tropical Storm, Nor'easter, Severe Weather, Severe Winter Weather	Administration, DPW	<p><b>Problem:</b> Several specific areas of the Township continually have trees coming down across roadways which consequently take down power lines. The DPW can do small jobs but not jobs of large trees near power and other utility lines. JCPL only maintains certain distances from their lines. Other utilities only do reactive vegetative management rather than preventative mitigation. Having the financial resources to have properly equipped and insured Tree Removal companies remove trees within the Township Road ROW's would be extremely beneficial to mitigating against power outages both long and short term in length.</p> <p><b>Solution:</b> The Township will pursue funding support to have a forester assess trees, complete deed searches to verify Township right of way in targeted areas, and then have the tree removal completed by qualified personnel.</p>	1. In Progress 2. JCP&L has confirmed impacts from the emerald ash borer and addresses tree maintenance on certain trees. The Public Works Department purchased a bucket truck and attended safety courses to address tree trimming and removal of those which JCP&L are not addressing.	1. Include 2. Keep as is but include the work DPW has performed. 3. Not Applicable
2021-Stillwater-006	Controlled Burns	Drought, Wildfire, Invasive Species	Local Fire Departments, NJ Forest Fire Service	<p><b>Problem:</b> Wildfire risk exists in the Township. Drought and wildfire go hand in hand in Stillwater Township. As</p>	1. Complete 2. The Township Fire Department has works with the NJ FFS on controlled burns to	1. Discontinue 2. Not Applicable 3. The Township Fire Department has works with the



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<p>droughts or extended dry periods never classified as droughts occur, the undergrowth gets overly dry. Invasive species have caused forested areas to die out and leave large undergrowth areas that are getting thicker and harder to manage.</p> <p><b>Solution:</b> The Township will pursue expansion of controlled burns, working with the local fire department and the NJ Forest Fire Service to address forests on Township, state, and federal lands.</p>	<p>address forests on Township, state, and federal lands.</p>	<p>NJ FFS on controlled burns to address forests on Township, state, and federal lands.</p>
2021-Stillwater-007	Stand Pipes and Dry Hydrants	Drought, Wildfire, Invasive Species	Administration, Local Fire Department	<p><b>Problem:</b> Wildfire risk exists in the Township. Drought and wildfire go hand in hand in Stillwater Township. As droughts or extended dry periods never classified as droughts occur, the undergrowth gets overly dry. Invasive species have caused forested areas to die out and leave large undergrowth areas that are getting thicker and harder to manage.</p> <p><b>Solution:</b> The Township will work to install stand pipes or dry hydrants in various locations.</p>	<p>1. In Progress 2. Discussions have taken place to add a draft site staging area near the stand pipe at Lower Crandon Lakes.</p>	<p>1. Include 2. Keep as is 3. Not Applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				Installation will be strategically located to areas that would assist in protection of homes near these high undergrowth areas.		
2021-Stillwater-008	Baldwin Bridge	Hurricane/Tropical Storm, Nor'easter, Severe Weather, Severe Winter Weather, Flood, Dam Failure	Township DPW and OEM	<p><b>Problem:</b> Lower Crandon Lakes has only one ingress /egress bridge which would strand approximately 30 homes if the bridge were to be inoperable.</p> <p><b>Solution:</b> Lower Crandon Lakes has only one ingress /egress bridge. Recognizing that approximately 30 homes would be affected if the bridge should go out the Township has met with a representative of Swartswood State Park to begin the process of building a gravel emergency road at a much higher elevation to allow residents to leave as well as to allow emergency responders more possible avenues for emergency services. Meeting with the State Park representative was necessary to gain permission to have a portion of the road run across State Land.</p>	1. In Progress 2. The Township has met with the State Park, who agreed to allow QPA Road as an option. A closed road, which is located on Township property, is being investigated as a second option.	1. Include 2. Update to include second option in solution. 3. Not Applicable



### 22.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Stillwater participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Stillwater would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 22-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 22-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 22-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X	X	X		X	X
Disease Outbreak		X		X			X			X
Drought		X		X			X			X
Earthquake	X	X		X	X		X			X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X	X		X	X		X			X
Hazardous Materials		X		X			X			X
Hurricane	X	X	X	X	X		X	X	X	X
Infestation				X			X			
Nor'easter	X	X	X	X	X		X	X	X	X
Severe Weather	X	X	X	X	X		X	X	X	X
Severe Winter Weather	X	X	X	X	X		X	X		X
Wildfire	X	X		X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities





Table 22-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-StillwaterTwp-01	Dam Repair	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-StillwaterTwp-02	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-StillwaterTwp-03	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-StillwaterTwp-04	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-StillwaterTwp-05	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-StillwaterTwp-06	Critical Facilities in the Floodplain	0	1	1	1	1	0	0	0	1	0	1	1	1	0	8	Medium
2025-StillwaterTwp-07	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-StillwaterTwp-08	Kohlbocker Road	1	1	1	1	1	0	1	1	1	1	1	1	0	0	11	High
2025-StillwaterTwp-09	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-StillwaterTwp-10	Duck Pond Road	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2025-StillwaterTwp-11	Tree Maintenance	0	1	1	1	1	1	1	1	1	1	0	1	0	0	10	Medium
2025-StillwaterTwp-12	Stand Pipes and Dry Hydrants	1	1	1	1	1	0	1	1	1	0	1	1	1	0	11	High
2025-StillwaterTwp-13	Baldwin Gate Bridge	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High



Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-StillwaterTwp-14	Critical Facility Emergency Generator	1	1	1	1	1	0	0	1	1	1	1	1	1	0	10	Medium
2025-StillwaterTwp-15	Culvert Mapping	0	1	1	1	1	1	1	1	1	1	1	1	1	0	12	High
2025-StillwaterTwp-16	Emergency Operations Center Wind Designs	0	1	1	1	1	0	0	0	1	1	1	1	1	0	9	Medium
2025-StillwaterTwp-17	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-StillwaterTwp-18	Willow Crest Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

*Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).*



## Action 2025-StillwaterTwp-01. Dam Repair

<b>Lead Agency:</b>	Engineer						
<b>Supporting Agencies:</b>	Dam Manager, NJDEP Bureau of Dam Safety, County Engineer						
<b>Hazard(s) of Concern:</b>	<div><div><input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials</div><div><input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire</div></div>						
<b>Description of the Problem:</b>	<p>The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:</p> <ul style="list-style-type: none"><li>• Lower Crandon Lake Dam (poor)</li><li>• Lake Plymouth Dam (unsatisfactory)</li></ul> <p>Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.</p>						
<b>Description of the Solution:</b>	<p>The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.</p>						
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected						
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget						
<b>Implementation Timeline:</b>	Within 5 years						
<b>Goals Met:</b>	1, 2, 3						
<b>Benefits:</b>	<p>Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.</p>						
<b>Impact on Socially Vulnerable Populations:</b>	<p>The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.</p>						
<b>Impact on Future Development:</b>	<p>Future development downstream of dams will also be protected from dam failure.</p>						
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.</p>						
<b>Impact on Capabilities:</b>	Not applicable						
<b>Climate Change Considerations:</b>	<p>Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.</p>						
<b>Mitigation Category</b>	<div><div><input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</div><div><input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</div></div>						
<b>CRS Category</b>	<div><div><input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)</div><div><input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)</div></div>						
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low				
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Risk of dam failure remains or increases over time</td></tr></table>	Action	Evaluation	No Action	Risk of dam failure remains or increases over time		
Action	Evaluation						
No Action	Risk of dam failure remains or increases over time						



	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access
	Remove all dams	Without proper analysis, dam removal may increase flooding risk



## Action 2025-StillwaterTwp-02. Socially Vulnerable Populations Identification and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Township is not aware of socially vulnerable populations in their community. The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Township. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.		
<b>Description of the Solution:</b>	Work with the County to receive access to the Register Ready program to be able to identify the location of registered members of the socially vulnerable population. Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Township events, the Township newsletters, social media, the Township website, and having the materials on display for the public at Township libraries and offices. Consider hiring staff to work directly with socially vulnerable populations.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Township. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township will become educated on hazards risks. The Township will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	



	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
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## Action 2025-StillwaterTwp-03. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Planning Board, Zoning Board, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.		
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 2 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.		
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	
	Wait for information from the State on flood-damaged properties	May be a delay in notice	



## Action 2025-StillwaterTwp-04. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Public Works, Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP) </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP) </div> </div>		
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI) </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES) </div> </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>



	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-StillwaterTwp-05. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Engineering, Building Department, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.																
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Township Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5																
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.																
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.																
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.																
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.																
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input checked="" type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input checked="" type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Hire outside contractors for floodplain administration</td><td>Costly</td></tr><tr><td>Establish shared service agreements for floodplain administration from neighboring municipalities</td><td>Neighboring municipalities are unlikely to have the staff capacity to take on this role</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Hire outside contractors for floodplain administration	Costly	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role								
Action	Evaluation																
No Action	Current problem remains																
Hire outside contractors for floodplain administration	Costly																
Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role																



## Action 2025-StillwaterTwp-06. Critical Facilities in the Floodplain

<b>Lead Agency:</b>	Facility Managers		
<b>Supporting Agencies:</b>	Emergency Management, Floodplain Administrator		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has three critical facilities located in the floodplain including the County Line Dam, J.A. Little Farm Pond Dam, and Paulinskill Lake Dam.		
<b>Description of the Solution:</b>	Coordinate with the facility managers at the County Line Dam, J.A. Little Farm Pond Dam, and Paulinskill Lake Dam in the Township to support the mitigation of vulnerable structures via retrofit (e.g., elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Township Budget, Facilities		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action will remove or reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders.		
<b>Impact on Socially Vulnerable Populations:</b>	Retrofitting or relocating the identified structures will benefit socially vulnerable populations, as individuals within these populations rely on resources from various government facilities, transportation facilities, and medical and senior care facilities.		
<b>Impact on Future Development:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Critical Facilities/Lifelines:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Floodproof existing structures	May not necessarily reduce risk	
	Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function	



## Action 2025-StillwaterTwp-07. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM																
<b>Supporting Agencies:</b>	NJDEP, Dam Owners																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The County Line Dam, J.A. Little Farm Pond Dam, and Paulinskill Lake Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has a high-hazard potential dam, the Willow Crest Dam, within its jurisdiction. These structures have the potential to impact those living nearby.																
<b>Description of the Solution:</b>	The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5, 7																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Township will be unaware of any safety concerns for the dam or its condition</td></tr><tr><td>Utilize information from NJDEP</td><td>Owners may not be required to submit a safety plan to the State</td></tr><tr><td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr></table>	Action	Evaluation	No Action	Township will be unaware of any safety concerns for the dam or its condition	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory								
Action	Evaluation																
No Action	Township will be unaware of any safety concerns for the dam or its condition																
Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State																
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory																





## Action 2025-StillwaterTwp-08. Kohlbocker Road

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	Kohlbocker Road is eroding and is beginning to cause the collapse of the roadway along the streambank of the Paulins Kill. The elevation is relatively high as well. This road is an ingress and egress to a large lake community within Stillwater and Hampton Township. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	The Township Engineer will design a means of correcting and fixing this issue. This is an extensive process that would need plan design, and NJDEP permits.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Municipal Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action will prevent erosion along the Paulins Kill stream, protecting property and infrastructure from further impact.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding from the Paulins Kill stream. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding from the Paulins Kill stream, permitting first responders to traverse the roadways safely.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These periods of intense rain may lead to more instances of flooding and increased erosion.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem continues	
	Remove properties impacted by stream overflow	Costly	
	Construct floodwall to prevent flooding	Cost prohibitive and could ruin natural floodplain function	



## Action 2025-StillwaterTwp-09. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Construction Official, Building Department, Township Administration, NFIP State Coordinator, FEMA Regional Office		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	<p>The Township's Flood Damage Prevention Ordinance lacks language to include the state mandated freeboard requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.</p> <p>The Township's ordinance requires update.</p>		
<b>Description of the Solution:</b>	After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5,7		
<b>Benefits:</b>	The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.		
<b>Impact on Critical Facilities/Lifelines:</b>	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.		
<b>Impact on Capabilities:</b>	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.		
<b>Climate Change Considerations:</b>	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.		
<b>Mitigation Category</b>	<div><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>		
<b>CRS Category</b>	<div><input checked="" type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem exists	





	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage



## Action 2025-StillwaterTwp-10. Duck Pond Road

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Duck Pond Road is an area that floods during times of moderate to heavy rainfall over extended periods of time. Residents and emergency services often loose ingress or egress through this roadway during moderate to heavy extended periods of rain. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.																
<b>Description of the Solution:</b>	The Engineer will determine the elevation needed to reduce flooding on the roadway and maintain access. Public works will then carry out the elevation design.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, FMA																
<b>Implementation Timeline:</b>	Within 5 Years																
<b>Goals Met:</b>	2, 4, 5																
<b>Benefits:</b>	Duck Pond Road will not have as many flood related issues.																
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may not have flood insurance and may not have the funds to repair homes/assets that are damaged by flooding. This action would reduce flooding issues and therefore reduce the amount of homes/assets that are affected by flooding.																
<b>Impact on Future Development:</b>	This action reduces flooding in the area which may make the area more appealing for future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	Any critical facilities/lifelines that may be located at or near the Hendrickson Avenue will experience a reduction of flooding issues.																
<b>Impact on Capabilities:</b>	This action increases the Township's capability to handle flooding issues.																
<b>Climate Change Considerations:</b>	Climate change is leading to an increase in intensity and frequency of precipitation events, which can lead to an increase in flooding.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Increased municipal flood services</td><td>The flood issue continues</td></tr><tr><td>Elevate all properties and homes</td><td>Not as cost effective as reconstructing the culverts</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Increased municipal flood services	The flood issue continues	Elevate all properties and homes	Not as cost effective as reconstructing the culverts								
Action	Evaluation																
No Action	Current problem continues																
Increased municipal flood services	The flood issue continues																
Elevate all properties and homes	Not as cost effective as reconstructing the culverts																



## Action 2025-StillwaterTwp-11. Tree Maintenance

<b>Lead Agency:</b>	Public Works		
<b>Supporting Agencies:</b>	Utility Companies, Property Owners		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Several specific areas of the Township continually have trees coming down across roadways which consequently take down power lines. The DPW can do small jobs but not jobs of large trees near power and other utility lines. JCPL only maintains certain distances from their lines. Other utilities only do reactive vegetative management rather than preventative mitigation. Having the financial resources to have properly equipped and insured Tree Removal companies remove trees within the Township Road ROW's would be extremely beneficial to mitigating against power outages both long and short term in length.		
<b>Description of the Solution:</b>	The Township will pursue funding support to have a forester assess trees, complete deed searches to verify Township right of way in targeted areas, and then have the tree removal completed by qualified personnel. Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption in conjunction with property owners and utility companies.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	4 years		
<b>Goals Met:</b>	1, 2, 5, 7		
<b>Benefits:</b>	This action will result in the reduction of risk surrounding power outages by minimizing potential impacts from trees on utility lines.		
<b>Impact on Socially Vulnerable Populations:</b>	Some socially vulnerable population rely on power utilities for everyday care. If power outages are caused by a lack of tree maintenance, lives could potentially be at risk.		
<b>Impact on Future Development:</b>	This action assists in the protection of future development from impacts caused by tree collapses or branch falls as a result of severe weather, severe winter weather, hurricanes, and nor'easters.		
<b>Impact on Critical Facilities/Lifelines:</b>	Utility lines provide power to residencies, private businesses, government entities, and various providers. Not maintaining trees, tree limbs, or tree branches may impact the availability of power during severe weather and severe winter weather events.		
<b>Impact on Capabilities:</b>	The creation of a tree maintenance program would be a new capability for the Township.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to trees or tree limbs/branches falling or impacting utility lines and property.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input checked="" type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input checked="" type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Do not contact utility companies	Trees along utility lines may impact power during severe weather and severe winter weather events	



	Do not contact property owners	Trees on private residencies may impact power during severe weather and severe winter weather events
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## Action 2025-StillwaterTwp-12. Stand Pipes and Dry Hydrants

<b>Lead Agency:</b>	Fire Department		
<b>Supporting Agencies:</b>	Emergency Management, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Wildfire risk exists in the Township. Drought and wildfire go hand in hand in Stillwater Township. As droughts or extended dry periods never classified as droughts occur, the undergrowth gets overly dry. Invasive species have caused forested areas to die out and leave large undergrowth areas that are getting thicker and harder to manage.		
<b>Description of the Solution:</b>	The Township will work to install stand pipes or dry hydrants in various locations. Installation will be strategically located to areas that would assist in protection of homes near these high undergrowth areas.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	Municipal Budget, AFG		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	1, 2, 4, 5		
<b>Benefits:</b>	This action will provide water connections for the fire department to utilize for firefighting operations with needing to wait for a pump truck or relying on a fire hydrant.		
<b>Impact on Socially Vulnerable Populations:</b>	Populations near areas with stand pipes or dry hydrants will be better protected from the wildfire hazard.		
<b>Impact on Future Development:</b>	Future development near areas with stand pipes or dry hydrants will be better protected from the wildfire hazard.		
<b>Impact on Critical Facilities/Lifelines:</b>	While not official evacuation routes, access roads often provide the only ingress and egress for emergency response. This action will maintain important pathways for emergency response.		
<b>Impact on Capabilities:</b>	This action will protect emergency response capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events, which may cause additional problems with erosion.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Purchase tanker truck for water	Transportation route lost, emergency service response times.	
	Develop contract with neighboring towns for fire response	Too slow of response times, towns unable	



## Action 2025-StillwaterTwp-13. Baldwin Gate Bridge

<b>Lead Agency:</b>	Engineering Department										
<b>Supporting Agencies:</b>	Public Works, Emergency Management, State Parks Representatives, Bridge Owner										
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials         </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire         </div>										
<b>Description of the Problem:</b>	Lower Crandon Lakes has only one ingress /egress bridge which would strand approximately 30 homes if the bridge were to be inoperable. Failure of bridges or causeways could result in loss to life and limitations to emergency access.										
<b>Description of the Solution:</b>	Lower Crandon Lakes has only one ingress /egress bridge. Recognizing that approximately 30 homes would be affected if the bridge should go out the Township has met with a representative of Swartswood State Park to begin the process of building a gravel emergency road at a much higher elevation to allow residents to leave as well as to allow emergency responders more possible avenues for emergency services. Meeting with the State Park representative was necessary to gain permission to have a portion of the road run across State Land. The Township has met with the State Park, who agreed to allow QPA Road as an option. A closed road, which is located on Township property, is being investigated as a second option.										
<b>Estimated Cost:</b>	High										
<b>Potential Funding Sources:</b>	Township Budget, Bridge Owners, State Parks										
<b>Implementation Timeline:</b>	Within 5 years										
<b>Goals Met:</b>	2, 5										
<b>Benefits:</b>	This action ensures infrastructure will be protected from future hazard damages and that at least a single transportation route remains accessible to the community.										
<b>Impact on Socially Vulnerable Populations:</b>	This action will benefit socially vulnerable populations by ensuring routes are available for travel, should an evacuation occur or if emergency medical assistance is required.										
<b>Impact on Future Development:</b>	This action will ensure transportation routes are available to future developments during periods of heavy rainfall, which would otherwise cause roadway flooding.										
<b>Impact on Critical Facilities/Lifelines:</b>	This action ensures transportation routes remain open and accessible to the public for daily use and evacuation needs and provides a point of access for first responders into communities that may have faced damage from a hazard event on either side of the bridge.										
<b>Impact on Capabilities:</b>	Increases community resiliency to flooding events in vulnerable areas that would normally be vulnerable to prolonged isolation after high-water events.										
<b>Climate Change Considerations:</b>	Ensure the bridge structure is impervious to erosion at its base due to rising water levels.										
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)										
<b>CRS Category</b>	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)										
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)										
<b>CRS Category</b>	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)										
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low										
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th><th>Evaluation</th></tr> </thead> <tbody> <tr> <td>No action</td><td>Current problem remains</td></tr> <tr> <td>Build entirely new roads, bridges, and culverts throughout the county with adequate capacity</td><td>Project will most likely be too expensive</td></tr> <tr> <td>Install pumps at flood prone locations to pump water away from infrastructure and reduce the impact</td><td>Could have substantial upfront costs and would increase operations and maintenance cost</td></tr> </tbody> </table>			Action	Evaluation	No action	Current problem remains	Build entirely new roads, bridges, and culverts throughout the county with adequate capacity	Project will most likely be too expensive	Install pumps at flood prone locations to pump water away from infrastructure and reduce the impact	Could have substantial upfront costs and would increase operations and maintenance cost
Action	Evaluation										
No action	Current problem remains										
Build entirely new roads, bridges, and culverts throughout the county with adequate capacity	Project will most likely be too expensive										
Install pumps at flood prone locations to pump water away from infrastructure and reduce the impact	Could have substantial upfront costs and would increase operations and maintenance cost										



## Action 2025-StillwaterTwp-14. Critical Facility Emergency Generator

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works, Emergency Management, Township Administration, Fire Department		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	Fire Department (931 Newton-Swartwood Rd) is a shelter, the generator does not have the capacity to power the facility. This shelter is located in close proximity to socially vulnerable populations, who would utilize this facility as a safe, secure location to evacuate to in case of an emergency.		
<b>Description of the Solution:</b>	The Engineer will research what size generator is needed to power the Fire Department (931 Newton-Swartwood Rd). The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Fire Department (931 Newton-Swartwood Rd).		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5, 6, 7		
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	



## Action 2025-StillwaterTwp-15. Culvert Mapping

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Public Works																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township was recently upgraded to a Tier A stormwater management permit, which it is required to follow. The Township must re-examine and provide locations for all its culverts. Heavy rains can overwhelm culverts, making the need to identify their locations and the areas which may be impacted from flooding events necessary in order to reduce risk.																
<b>Description of the Solution:</b>	Township Engineering will map all its culvert and outflow locations via GIS to create a layer for its stormwater management program.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Staff Time, Township Budget																
<b>Implementation Timeline:</b>	Within 2 years																
<b>Goals Met:</b>	2, 4																
<b>Benefits:</b>	This action will produce a digital map layer of all culvert and outflow locations within the Township which can be used to support its stormwater management program.																
<b>Impact on Socially Vulnerable Populations:</b>	The map layer produced from this action will be able to display, with other supported layers, how the culverts may impact populations within the Township.																
<b>Impact on Future Development:</b>	The map layer produced from this action will be able to display, with other supported layers, how the culverts may impact any future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action bolsters the Township's stormwater infrastructure.																
<b>Impact on Capabilities:</b>	This action will enhance the Township's stormwater management capabilities.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input checked="" type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>-</td></tr><tr><td>Hire outside company to perform inspections</td><td>Contractor may not be able to properly locate culverts</td></tr><tr><td>Map locations by hand</td><td>May mislocate culverts</td></tr></table>			Action	Evaluation	No action	-	Hire outside company to perform inspections	Contractor may not be able to properly locate culverts	Map locations by hand	May mislocate culverts						
Action	Evaluation																
No action	-																
Hire outside company to perform inspections	Contractor may not be able to properly locate culverts																
Map locations by hand	May mislocate culverts																



## Action 2025-StillwaterTwp-16. Emergency Operations Center Wind Designs

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Emergency Management, Township Administration		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	The Emergency Operations Center at 931 Swartswood Road requires a roof replacement to meet high wind standards and maintain continuity of operations. The facility has multiple uses for the base of operations for Emergency Management, as a sheltering location, and as a community center. The facility is supported by a backup generator. High wind associated with severe winter weather, severe weather, hurricanes, and nor'easters have the potential to damage the roof, which may cause injury to the individuals inside of the building.		
<b>Description of the Solution:</b>	The Township Engineer will determine the necessary high wind design standards and costs of a new roof. The Township will then install the new roof.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Township Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 6		
<b>Benefits:</b>	This action will protect the Emergency Operations Center, a critical facility and community lifelines, from wind damage associated with severe weather, severe winter weather, hurricanes, nor'easters, and any debris which the winds may elevate.		
<b>Impact on Socially Vulnerable Populations:</b>	The Emergency Operations Center may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will protect the Municipal Hall from potential wind damages caused by debris.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as hurricanes, nor'easters, winter storms, and winds. This action accounts for a likely increase in flying debris which may damage the building.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem continues	
	Build new Emergency Operations Center	Costly, unnecessary	
	Replace all roof without referencing changes in building standards	May result in same issue	



## Action 2025-StillwaterTwp-17. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	





	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-StillwaterTwp-18. Willow Crest Dam Rehab

<b>Lead Agency:</b>	New Jersey Division of Parks and Forestry																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Willow Crest Dam is a Class I High Hazard Dam that is located on Willow Crest Lake. The dam is owned by the New Jersey Division of Parks and Forestry. Failure of the dam could result in inundation of populated areas, forested areas, recreational areas, and local roadways including Old Tannery Road and Mt. Benevolence Road. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the New Jersey Division of Parks and Forestry to complete an engineering study of Willow Crest Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the New Jersey Division of Parks and Forestry will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Willow Crest Lake as an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Willow Crest Lake as an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Willow Crest Lake as an environmental and recreational resource.																



## 22. Township of Stillwater

	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## 23. BOROUGH OF SUSSEX

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Borough of Sussex with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Sussex, describes who participated in the planning process, assesses Sussex's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 23.1 HAZARD MITIGATION PLANNING TEAM

The Borough of Sussex identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Borough departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 23-1 summarizes Borough officials who participated in the development of the annex and in what capacity. Additional documentation of the Borough's planning activities through Planning Partnership meetings is included in Volume I.

Table 23-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Floyd Southard / EMC Address: 2 Main Street, Sussex, NJ 07461 Phone Number: (973) 534-7258 Email: oem@sussexboro.com	Name/Title: Robert Regavich / Deputy EMC Address: 2 Main Street, Sussex, NJ 07461 Phone Number: (973) 271-2047 Email: rregavich@gmail.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: George Hutnick / Zoning and Code Enforcement Officer Address: 2 Main Street, Sussex, NJ 07461 Phone Number: (973) 875-4831 Email: zoning@sussexboro.com	
<b>Additional Contributors</b>	
Name/Title: Floyd Southard / EMC Method of Participation: Assisted in the completion of municipal worksheets. Reviewed the draft annex for final edits and submitted sign-off sheet.	
Name/Title: Robert Regavich / Deputy EMC Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Toni Smith, RMC, CMR / Clerk Method of Participation: Reviewed the draft annex for final edits and submitted sign-off sheet.	
Name/Title: George Hutnick / Zoning and Code Enforcement Officer Method of Participation: Assisted in the completion of municipal worksheets. Reviewed the draft annex for final edits and submitted sign-off sheet.	
Name/Title: Joe Butto / Construction Official Method of Participation: Assisted in the completion of municipal worksheets. Reviewed the draft annex for final edits and submitted sign-off sheet.	



## 23.2 COMMUNITY PROFILE

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The Borough of Sussex is located in northern Sussex County. Sussex Borough was settled by Peter Decker in approximately 1742. It was incorporated from Wantage Township as the Borough of Deckertown on October 15, 1891. The name was changed to Sussex Borough on March 2, 1902, named for the historic county of Sussex in England. Sussex Borough has a total area of 0.62 square miles and is completely surrounded by Wantage Township. Clove Brook flows through the Borough.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 1.3-percent of the population is 5 years of age or younger, 1.2-percent is 65 years of age or older, 1.4-percent is non-English speaking, 5-percent is below the poverty threshold, and 2.2-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Borough of Sussex, 48-percent of households earn less than the basic cost of living and are considered socially vulnerable.

## 23.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Sussex performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Sussex to identify opportunities for integrating mitigation concepts into ongoing Borough procedures.

### 23.3.1 Planning and Regulatory Capability and Integration

Table 23-2 summarizes the planning and regulatory tools that are available to Sussex.



Table 23-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.); Chapter 12 Section 3, Buildings and Housing – Uniform Construction Code	State	Hardyston Township Building Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Building Department is responsible for enforcement of the NJ Uniform Construction Code. Sussex Borough has a shared service agreement with Hardyston Township for running the Building/Construction Department. All checks must be made payable to Hardyston Township.</i>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 19, Zoning	Local	Zoning Officer
How has or will this be integrated with the HMP and how does this reduce risk? <i>The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.</i>				
<b>Subdivision Code</b>	Yes	Chapter 18, Land Subdivision	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.</i>				
<b>Site Plan Code</b>	Yes	Chapter 21 Site Plan Reviews	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Approval of a site plan is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.</i>				
<b>Stormwater Management Code</b>	Yes	Chapter 25, Stormwater Control	Local	Engineering
How has or will this be integrated with the HMP and how does this reduce risk? <i>The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.</i>				
<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*
- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*

<b>Growth Management</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 19, Zoning	Local	Zoning Officer

How has or will this be integrated with the HMP and how does this reduce risk?

*The ordinance notes the purpose "to promote the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons, neighborhood, communities, and preservation of the environment".*

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 22, Flood Hazard Areas	Local	Zoning Officer
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How has or will this be integrated with the HMP and how does this reduce risk?

*This ordinance follows Chapter 22- Flood Hazard Areas. It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:*

- A. Protect human life and health;*
- B. Minimize expenditure of public money for costly flood control projects;*
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;*
- D. Minimize prolonged business interruptions;*
- E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard;*
- F. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;*
- G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and*
- H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Emergency Management Ordinance</b>	Yes	Chapter 26, Emergency and Disaster Management	Local	Office of Emergency Management
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How has or will this be integrated with the HMP and how does this reduce risk?

*This chapter adopts the principles of the National Incident Management System (NIMS) and appointments the Emergency Management Coordinator.*

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

#### PLANNING DOCUMENTS

<b>General/Comprehensive Plan</b>	Yes	Master Plan, March 2024	Local	Planning and Zoning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*The plan is intended to serve as a guide with which to protect and enhance the quality of life in the Borough of Sussex. It accomplishes this by fostering orderly, manageable, and cost-effective growth and establishing a framework for future land use decisions.*

<b>Capital Improvement Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Economic Development Plan</b>	Yes	Economic Development Master Plan Element, July 2022	Local	Planning and Zoning Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>This Economic Development Master Plan Element will serve as an addendum to the Borough's Master Plan. This plan provides 36 Recommendations that are broken into eight categories: placemaking, utilities, parking, wayfinding, pedestrian infrastructure, zoning, business improvement, and economic development focus areas. While these recommendation categories cover a wide variety of topic areas, the scope of each is solely within the context of economic development. These recommendations seek to remedy the obstacles and enhance positive characteristics. In recognition of the logistical and financial constraints of a small municipality, only recommendations that are realistically attainable were included. This plan aspires to provide the Borough with implementable actions that will yield tangible benefits to the Borough's economic vitality.</i>				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Forest Management Plan</b>	Yes	Community Forest Management Plan, 2010	Local	Shade Tree Commission
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*The objectives in this five-year plan address street trees, park trees, and trees on other public grounds. Future plans will build on the successes of this plan and follow up on goals not attained during this planning period. The objectives and timeline for completion outlined in this plan are dependent on the availability of funding and will be altered from time-to-time to ensure there is no negative impact on the day-to-day operations of the Borough.*

<b>Transportation Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Agriculture Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Tourism Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Business/ Downtown Development Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other</b>	Yes	Neighborhood Plan 2021-31, May 2021	Local	Planning and Zoning Board
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How has or will this be integrated with the HMP and how does this reduce risk?

*In the next ten years, the neighborhood in Sussex Borough will build on its wealth of assets and overcome its specific challenges to become an “inclusive and prosperous community with pride in its past and its future growth.” This vision was developed with input and involvement from a diverse mix of neighborhood stakeholders including residents, business owners, non-profit leaders, and elected officials. Through the guidance of a representative Steering Committee with input from the public, the Borough Council and the Mayor’s office, three goals were identified:*

- Cultivate an Inclusive, Safe, and Proud Neighborhood
- Create Prosperity for All
- Establish a Safe, Stable, and Affordable Place to Call Home

*These broad goals help organize a set of strategies that include establishing new parks and paths, enhancing the Main Street business district, bringing more visitors to the neighborhood for events and amenities, creating increased community engagement, and increasing home ownership and property maintenance. The plan that follows describes key characteristics of the neighborhood, outlines in detail the strategies and activities aligned with the identified goals and delineates the process by which community members were engaged in the formation of this document.*

#### RESPONSE/RECOVERY PLANNING

<b>Emergency Operations Plan</b>	Yes	Borough of Sussex Emergency Operations Plan, 2023	Local	Office of Emergency Management
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How has or will this be integrated with the HMP and how does this reduce risk?

*The Emergency Operations Plan aims to assess the Borough’s ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.*

<b>Continuity of Operations Plan</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Substantial Damage Response Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Threat and Hazard Identification and Risk Assessment</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Post-Disaster Recovery Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Public Health Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-

### 23.3.2 Development and Permitting Capability

Table 23-3 summarizes the capabilities of Sussex to oversee and track development.

Table 23-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	No	The Building Department is responsible for enforcement of the NJ Uniform Construction Code. Sussex Borough has a shared service agreement with Hardyston Township for running the Building/Construction Department. All checks must be made payable to Hardyston Township.
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	-
Describe the level of buildout in your jurisdiction.	N/A	According to the 2022 Economic Development Plan, the Borough has 19.1 acres, or roughly 6.6% of its total land identified as vacant. This land is able to be developed but has not been designated as such. Several vacant properties are found within the residential neighborhoods in the western part of the Borough. Some vacant properties are also found along commercial routes, most notably along the State Route 23 Southbound.



### 23.3.3 Administrative and Technical Capability

Table 23-4 summarizes potential staff and personnel resources available to Sussex and their current responsibilities that contribute to hazard mitigation.

Table 23-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Borough's Planning Board has the powers and responsibilities of a planning board and a zoning board of adjustment. The Board has nine members and up to four alternates.
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	The shade tree commission appointed and organized pursuant to this section shall have the following powers within the Borough of Sussex: exercise full and exclusive control over the regulation, planting and care of shade and ornamental trees and shrubbery now located or which may hereafter be planted in any public highway, park or parkway, except such as are excluded pursuant to N.J.S.A. 40:64-1, including the planting, trimming, spraying, care and protection thereof; regulate and control the use of the ground surrounding the same so far as may be necessary for their proper growth, care and protection; move or require the removal of any tree or part thereof dangerous to public safety; encourage arboriculture; make, alter, amend and repeal, in the manner prescribed for the passage, alteration, amendment and repeal of ordinances by the governing body of the municipality, any and all ordinances necessary or proper for carrying out the provisions hereof; and administer treatment to or remove any tree situated upon private property which is believed to harbor a disease or insects readily communicable to neighboring healthy trees in the care of the municipality, and enter upon private property for that purpose with the consent of the owner thereof, provided the suspected condition is first confirmed by certificate issued by or on behalf of the Department of Agriculture.
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	The Sussex Borough Economic Development Committee (EDC) enhances and promotes the many attributes that Sussex Borough has to offer; creates opportunities for economic development through the retention and growth of existing businesses and in attracting new commercial development; works as a partner in developing a climate for economic growth.
Public Works/Highway Department	Yes	The Department of Public Works is responsible for the maintenance of streets, roads, avenues, buildings, public places and sewer and water utilities.





Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Construction/Building/Code Enforcement Department	No	Sussex Borough has a shared service agreement with Hardyston Township for running the Building/Construction Department. All checks must be made payable to Hardyston Township.
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management plans for and responds to any emergency within the Borough. It is responsible for coordinating the response of local, County, and State offices during an emergency.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	County
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	No job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk.
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Planner-Ken Nelson, Engineer-Harold Pellow
Engineers or professionals trained in building or infrastructure construction practices	Yes	Planner-Ken Nelson, Engineer-Harold Pellow
Planners or engineers with an understanding of natural hazards	Yes	Planner-Ken Nelson, Engineer-Harold Pellow
Staff with expertise or training in benefit/cost analysis	Yes	CFO
Professionals trained in conducting damage assessments	Yes	Water-Sewer Engineer
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Office of Emergency Management, Coordinator
Grant writers	Yes	Bruno Associates
<i>Consider the following:</i> Are data and maps from the HMP used to support documentation in grant applications?		
Resilience Officer	No	-



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 23.3.4 Fiscal Capability

Table 23-5 summarizes financial resources available to Sussex.

Table 23-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes (Special Assessments)
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 23.3.5 Education and Outreach Capability

Table 23-6 summarizes the education and outreach resources available to Sussex.

Table 23-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Administrator as part of the Emergency Management Committee.
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Shade Tree Commission
Warning systems for hazard events	Yes	Nixle alert system
Natural disaster/safety programs in place for schools	No	-



Outreach Resources	Available? (Yes/No)	Comment
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

### 23.3.6 Community Classifications

Table 23-7 summarizes classifications for community programs available to Sussex.

Table 23-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	6	2016
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 23.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 23-8 summarizes the adaptive capacity for each identified hazard of concern and the Borough’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 23-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate



Hazard	Adaptive Capacity - Strong/Moderate/Weak
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor'easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

## 23.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 23-1 is responsible for maintaining this information.

### 23.4.1 NFIP Statistics

Table 23-9 summarizes the NFIP policy and claim statistics for Sussex.

Table 23-9. Sussex NFIP Summary of Policy and Claim Statistics

# Policies	3
# Claims (Losses)	4
Total Loss Payments	\$65,202.14
# Repetitive Loss Properties (NFIP definition)	1
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

*Source: FEMA Region II 2024*

### 23.4.2 Flood Vulnerability Summary

Table 23-10 provides a summary of the NFIP program in Sussex.



Table 23-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Borough occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	Yes
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Zoning
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes – online federal, state, and regional resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would consider attending continuing education and/or certification training on floodplain management if it were offered in the County.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Staff and funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	July 26, 1990
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 22, Flood Hazard Areas



NFIP Topic	Comments
What is the date that your flood damage prevention ordinance was last amended?	September 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Planning/Zoning Board considers efforts to reduce flood risk when reviewing variances such as height restrictions. The Borough has subdivision and site plan ordinances.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 23.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 23-11 through Table 23-13.

Table 23-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)





Table 23-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There has no recent major development or infrastructure within the Borough in the passed five years.					

\* Only location-specific hazard zones or vulnerabilities identified.

Table 23-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There are no known or anticipated major development and infrastructure in the Borough within the next five years.					

## 23.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Sussex's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 23.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Borough are shown in Figure 23-1 through Figure 23-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Sussex has significant exposure. The maps show the location of potential new development, where available.



Figure 23-1. Sussex Flood and Sinkhole Hazard Area Extent and Location Map

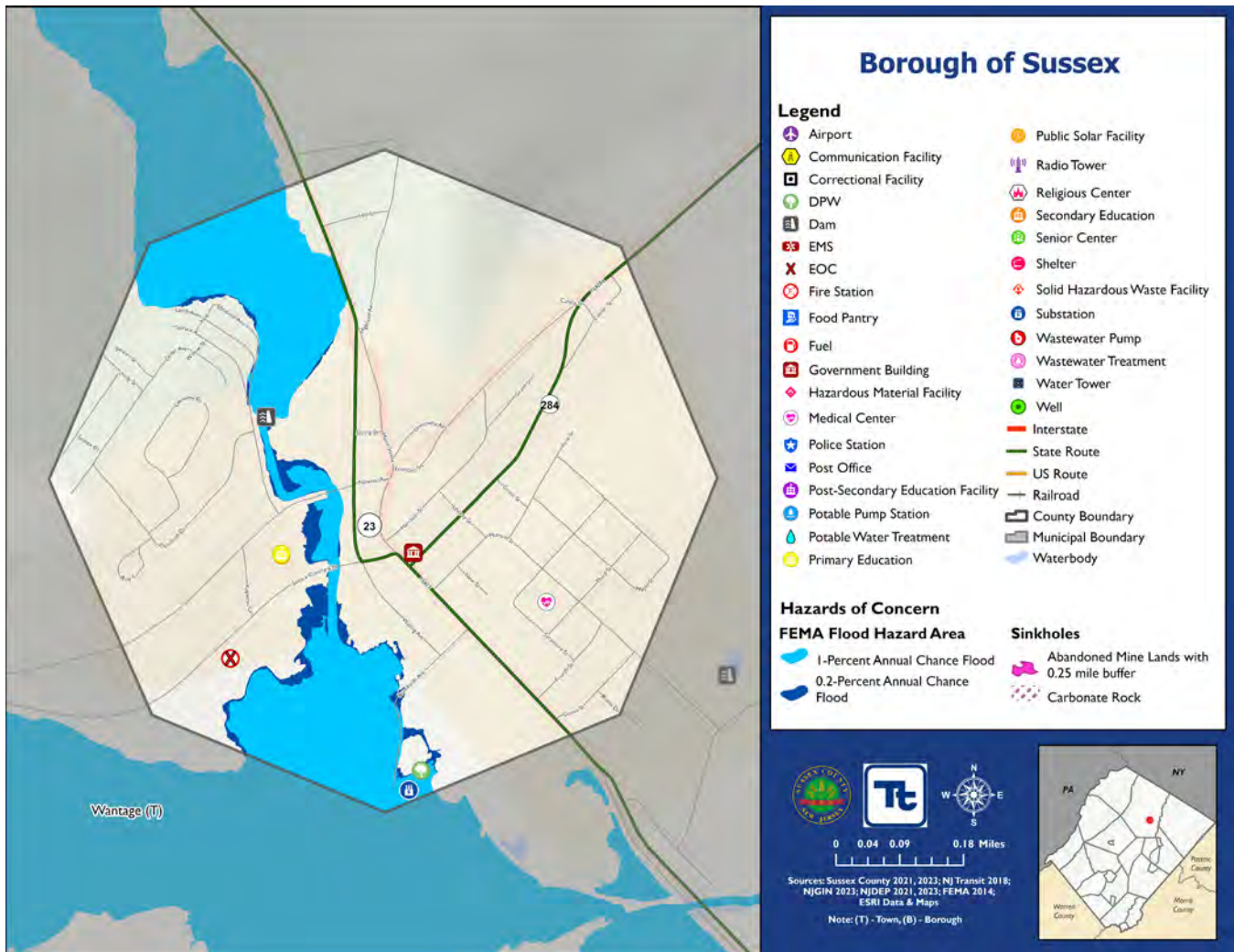




Figure 23-2. Sussex Hazardous Materials and Wildfire Hazard Area Extent and Location Map

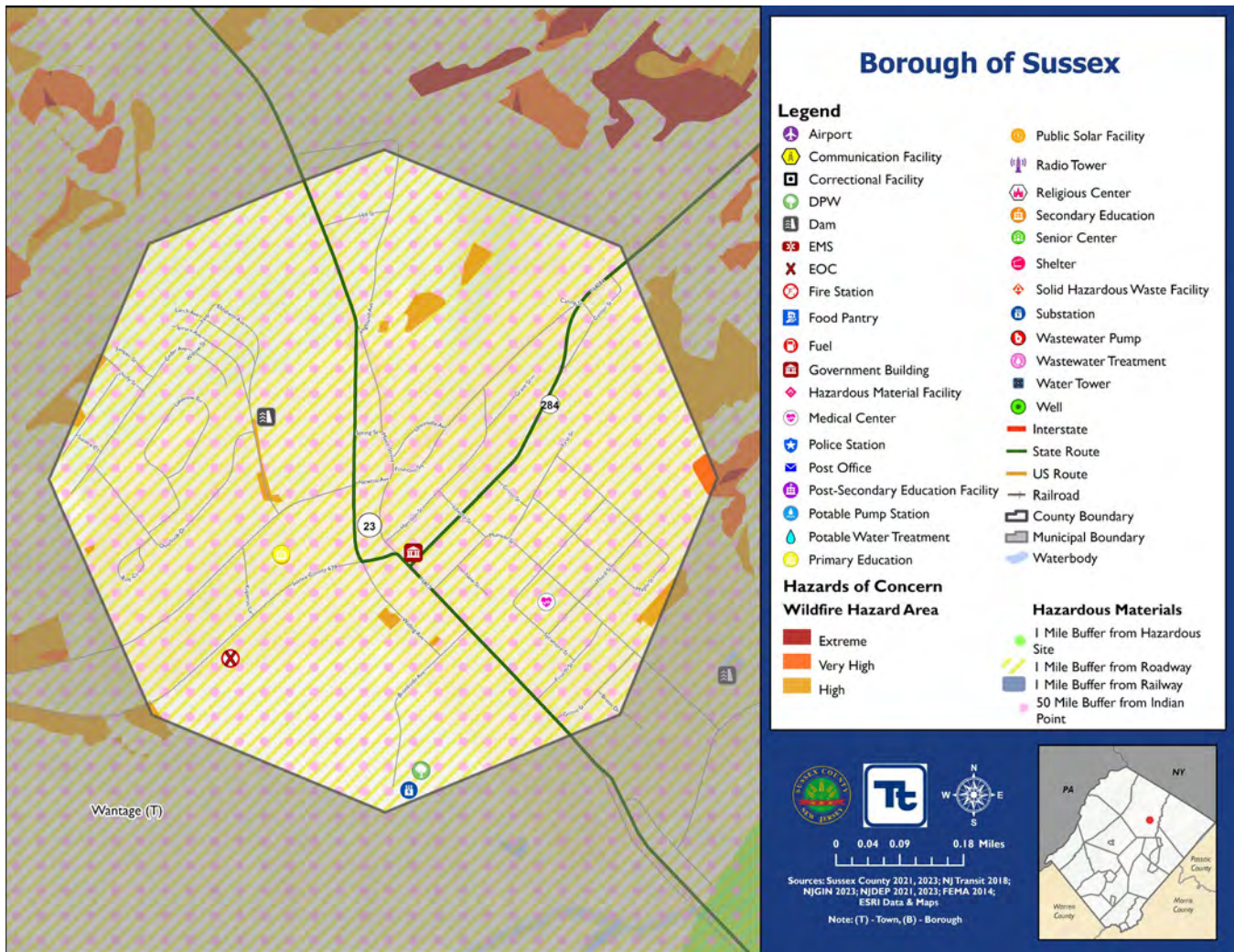
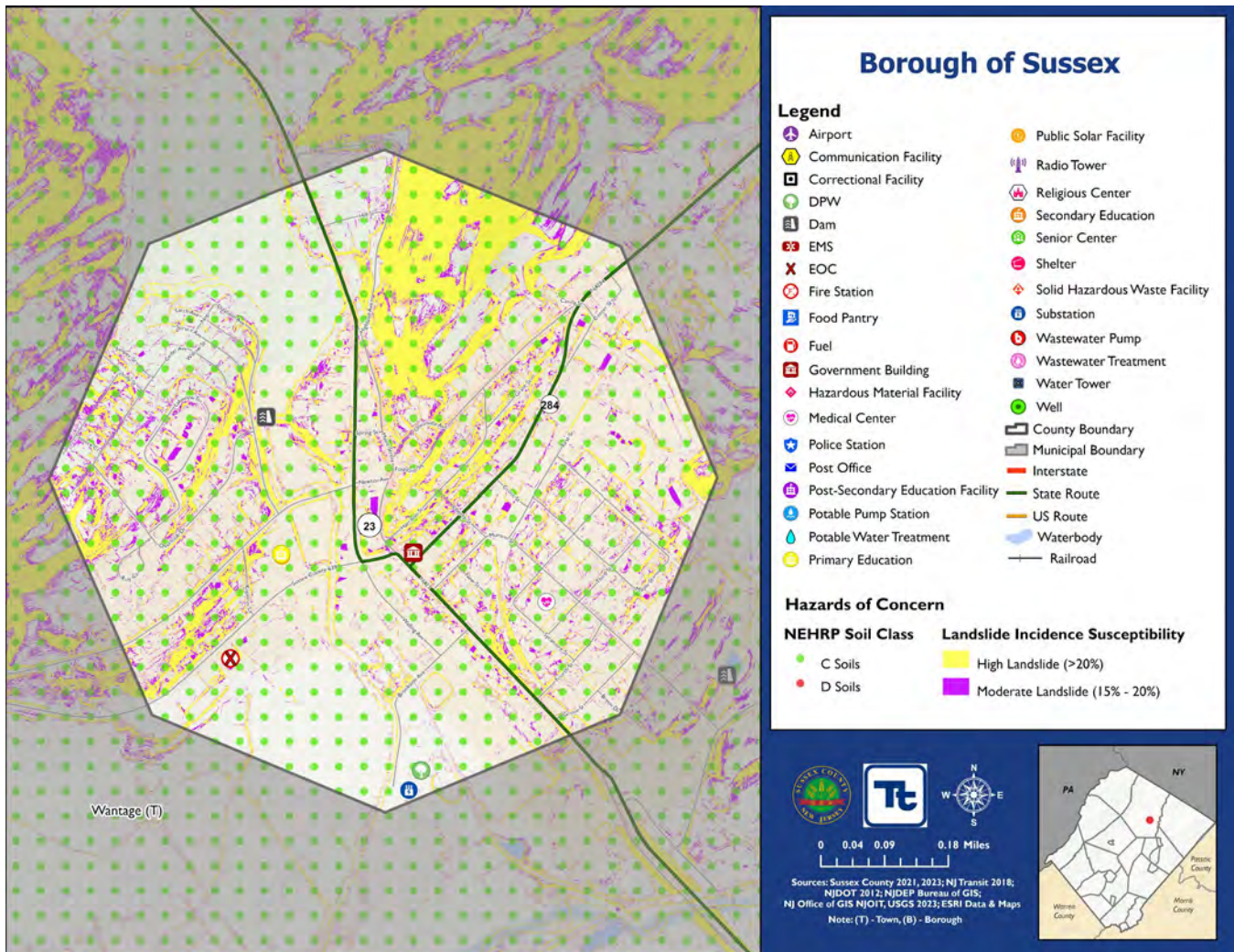






Figure 23-3. Sussex Landslide and NEHRP Soils Hazard Area Extent and Location Map





## 23.6.2 Hazard Event History

The history of natural and non-natural hazard events in Sussex is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 23-14 provides details on loss and damage in Sussex during hazard events since the last hazard mitigation plan update.

Table 23-14. Hazard Event History in Sussex

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Sussex
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Borough implemented masking and social distancing mandates. Non-emergent personnel were permitted to work from home.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Downed trees and power lines. Public Works officials assisted in the clean-up on Borough maintained roadways and properties.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Heavy snowfall and high snow accumulations impacted the Borough. No damages or losses occurred to Borough property. Public Works officials assisted in the clean-up on Borough maintained roadways and properties.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Flash flooding resulted in road closures. Public Works officials assisted in the clean-up on Borough maintained roadways and properties.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 23.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Sussex .



## Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Sussex reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Borough indicated the hazard rankings were accurate.

Table 23-15 shows Sussex's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 23-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Low
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 23-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 23-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Clove River Dam	Dam	Yes	Yes	2025-SussexB-07, 2025-SussexB-08	-





Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
DPW Garage/Sewer Department	Public Works	Yes	Yes	2025-SussexB-07	-
JCP&L	Substation	No	Yes	2025-SussexB-07	-

Source: NJGIN 2023; Sussex County 2021, 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Sussex:

- Clove River Dam
- Paulinskill Water Shed #2 Dam

### 23.6.4 Identified Issues

After review of Sussex's hazard event history, hazard rankings, hazard location, and current capabilities, Sussex identified the following vulnerabilities within the community:

- The Borough lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Borough. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.
- The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has one repetitive loss property, but other properties may be impacted by flooding as well.
- The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.
- The Borough does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Borough has three critical facilities located in the floodplain including Clove River Dam, Public Works Garage/Sewer Department, and a JCP&L substation.



- The Clove River Dam, a critical infrastructure, is located in the 1- and 0.2-percent flood hazard areas. The Borough also has two high-hazard potential dams, the Clove River Dam and Paulinskill Water Shed #2 Dam, within its jurisdiction. These structures have the potential to impact those living nearby.
- The Borough has aging equipment and limited manpower for a long duration winter storm. Not having the capabilities to respond to a long duration severe winter weather event can result in snow-covered roadways, which can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- Critical facilities in the Borough, including the Borough Hall and the Fire Station (which is also the Borough's Emergency Operations Center) do not have backup generators. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.
- Clove River Dam is a flood risk. The County route and local road run over the Clove Brook which if flooded would take out two bridges that separate the Firehouse from the rest of the Borough. Flood risk could be reduced through stream bank stabilization surrounding confluence of Clove Brook and Papakating Creek.
- The Borough's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.
- Lake Rutherford Dam (located in High Point State Park) and Colesville Reservoir Dam (located on Brink Road) require upgrades to reduce the chance of dam failure. The areas the dams are located in have experienced flooding in the past, heightening the chance of dam failure. Dam failure can inundate nearby areas with waters, causing flooding conditions and the potential to damage life and property.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- Clove River Dam is a Class I High Hazard Dam that is located on Clove Acres Lake. The dam is owned by the Borough. Failure of the dam could result in inundation of densely populated areas, recreational areas, critical facilities and community lifelines, and local roadways including Elizabeth Avenue, Newton Avenue, Valley Road, School Road, and State Route 23. Although the dam was last inspected in 2023 and found to be in fair condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Paulinskill Water Shed #2 Dam is a Class I High Hazard Dam that is located along the Moores Brook. The dam is owned by the Green Hills Estate POA. Failure of the dam could result in inundation of densely populated areas, wooded areas, critical facilities and community lifelines, and local roadways including Glenn Terrace and Swartswood Road. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 23.7 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.



### 23.7.1 Past Mitigation Action Status

Table 23-17 indicates progress on the Borough's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 23.7.2 Additional Mitigation Efforts

Sussex did not identify any additional mitigation efforts completed since the last HMP.



Table 23-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Borough of Sussex-001	Backup Generator for Critical Facilities	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	Engineer, Public Works	<p><b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. Borough Hall has no backup generator. It was not previously feasible to install until the Borough bought the lot next to the Borough Hall. In addition, the Firehouse is used as an Emergency Operations Center which leads to increased usage during a power outage.</p> <p><b>Solution:</b> The Borough Engineer will research what size generator is needed to power the Borough Hall. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the Borough Hall.</p> <p>The Engineer will also review the generator in place at the Fire House to ensure that it has the capacity to support its use as an Emergency Operations Center. If the generator is lacking the capacity needed, the Borough will replace the generator with the correct sized generator.</p> <p>Public Works will be responsible for maintenance of generators.</p>	<p>1. No Progress</p> <p>2. The Borough was not able to secure funding for this project</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Borough of Sussex-002	Repetitive Loss Mitigation	Flood, Severe Weather	NFIP Floodplain Administrator, supported by homeowners	<p><b>Problem:</b> The Borough has one repetitive loss property. There may be additional properties with high flood risk. These properties require mitigation to prevent future losses and prevent loss of life and property damage.</p> <p><b>Solution:</b> The Borough will conduct outreach to the RL property owner and property owners that have high flood risk and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	1. No Progress 2. The Borough prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable
2020-Borough of Sussex-003	Raised Sewer Pumps at DPW	Flood, Severe Weather	Public Works	<p><b>Problem:</b> The DPW Garage/Sewer Department is in floodplain of Papakating Creek. Flooding is a concern.</p> <p><b>Solution:</b> The Borough will install and raise larger replacement sewer pumps along with an applicable sized backup generator and necessary electrical components.</p>	1. No Progress 2. The Borough was not able to secure funding for this project	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Borough of Sussex-004	Increase Winter Storm Capabilities	Severe Winter Weather	Administration, DPW	<b>Problem:</b> The Borough has aging equipment and limited manpower for a long duration winter storm.  <b>Solution:</b> The Borough will work to secure funding for aging equipment and replace as necessary. The Borough will also explore shared services with other municipalities/county/state DPWs and establish agreements with private contractors for long duration storms.	1. No Progress 2. The Borough was not able to secure funding for this project	1. Include 2. Keep as is 3. Not applicable
2020-Borough of Sussex-005	Streambank Stabilization	Dam Failure, Flood, Severe Weather	Administration	<b>Problem:</b> Clove River Dam is a flood risk. The County route and local road run over the Clove Brook which if flooded would take out two bridges that separate the Firehouse from the rest of the Borough.  <b>Solution:</b> The Borough will aim to reduce flood risk through stream bank stabilization surrounding confluence of Clove Brook and Papakating Creek.	1. No Progress 2. The Borough was not able to secure funding for this project	1. Include 2. Keep as is 3. Not applicable
2020-Borough of Sussex-006	Flood Damage Prevention Ordinance	Flood	FPA, Administration	<b>Problem:</b> The Borough's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.  <b>Solution:</b> The Borough will adopt an updated version of the Flood Damage Prevention Ordinance which includes	1. No Progress 2. The Borough prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				the state mandated freeboard requirement.		
2020-Borough of Sussex-007	Disaster Debris Management Plan	Dam Failure, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	OEM, DPW	<b>Problem:</b> The Borough lacks a Disaster Debris Management Plan. <b>Solution:</b> The Borough will develop and adopt a Disaster Debris Management Plan.	1. No Progress 2. The Borough prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable
2020-Borough of Sussex-008	Update Emergency Operations Plan to Include Mitigation Integration	Dam Failure, Disease Outbreak, Drought, Earthquake, Flood, Geologic, Hazardous Materials, Hurricane and Tropical Storm, Invasive Species,	OEM	<b>Problem:</b> The Borough's Emergency Operations Plan is due for update. The plan currently lacks information on hazard mitigation integration. <b>Solution:</b> The Borough will update the Emergency Operations Plan and increase the integration of hazard mitigation concepts and information derived from the HMP.	1. No Progress 2. The Borough prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Nor'easter, Severe Weather, Severe Winter Weather, Wildfire				
2020-Borough of Sussex-009	Dam Armoring	Dam Failure, Flood, Severe Weather	DPW	<b>Problem:</b> Lake Rutherford Dam (located in High Point State Park) and Colesville Reservoir Dam (located on Brink Road) require upgrades to reduce the change of dam failure. The areas the dams are located in have experienced flooding in the past, heightening the chance of dam failure.  <b>Solution:</b> The DPW manager will complete in progress efforts to armor Lake Rutherford Dam and Colesville Reservoir Dam.	1. No Progress 2. The Borough was not able to secure funding for this project	1. Include 2. Keep as is 3. Not applicable



### 23.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Sussex participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Sussex would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Borough priorities.

Table 23-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 23-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 23-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X		X	X		X	X
Disease Outbreak		X		X			X			X
Drought		X		X			X			X
Earthquake	X	X		X			X			X
Flood	X	X	X	X	X	X	X	X	X	X
Geological Hazards	X	X		X			X			X
Hazardous Materials	X	X		X			X			X
Hurricane	X	X	X	X			X	X		X
Infestation				X			X			
Nor'easter	X	X	X	X			X	X		X
Severe Weather	X	X	X	X			X	X		X
Severe Winter Weather	X	X		X			X			X
Wildfire	X	X		X			X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 23-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-SussexB-01	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-SussexB-02	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-SussexB-03	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-SussexB-04	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-SussexB-05	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-SussexB-06	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-SussexB-07	Critical Facilities in the Floodplain	1	1	1	1	1	0	0	1	1	0	1	1	1	0	10	Medium
2025-SussexB-08	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-SussexB-09	Increase Winter Storm Capabilities	1	1	1	1	1	1	1	1	1	1	1	1	0	0	12	High
2025-SussexB-10	Generators at Critical Facilities	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-SussexB-11	Streambank Stabilization	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-SussexB-12	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-SussexB-13	Dam Armoring	1	1	1	1	1	0	1	1	1	0	1	1	1	0	11	High
2025-SussexB-14	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-SussexB-15	Clove River Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-SussexB-16	Paulinskill Water Shed #2 Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



## Action 2025-SussexB-01. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Public Works, Borough Administration		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Borough currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.		
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	5		
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.		
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable		
<b>Impact on Future Development:</b>	Not Applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable		
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Rely on federal cleanup	These services may or may not be available	
	Rely on state cleanup	These services may or may not be available	





## Action 2025-SussexB-02. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Borough does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying, communicating, and educating vulnerable populations can increase the resiliency of the Borough. Furthermore, emergency responders will be able to prioritize assistance, when feasible, in an emergency to help those who need it most.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Borough events, the Borough newsletters, social media, the Borough website, and having the materials on display for the public at Borough libraries and offices. Consider hiring staff to work directly with socially vulnerable populations.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Borough. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Borough will become educated on hazards risks. The Borough will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-SussexB-03. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Borough Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure         <input checked="" type="checkbox"/> Disease Outbreak         <input checked="" type="checkbox"/> Drought         <input checked="" type="checkbox"/> Earthquake         <input checked="" type="checkbox"/> Flood         <input checked="" type="checkbox"/> Geological Hazards         <input checked="" type="checkbox"/> Hazardous Materials       </div> <div> <input checked="" type="checkbox"/> Hurricane         <input checked="" type="checkbox"/> Infestation         <input checked="" type="checkbox"/> Nor'easter         <input checked="" type="checkbox"/> Severe Weather         <input checked="" type="checkbox"/> Severe Winter Weather         <input checked="" type="checkbox"/> Wildfire       </div>		
<b>Description of the Problem:</b>	The Borough currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Borough by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Borough.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Borough.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
<b>Impact on Capabilities:</b>	This action would build upon the Borough's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Borough	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-SussexB-04. Repetitive Loss Properties

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Sussex County		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has one repetitive loss property, but other properties may be impacted by flooding as well. Scattered privately-owned homesites are located along the Delaware River. Some of these properties are located in the Special Flood Hazard Area, with development requiring floodproofing.		
<b>Description of the Solution:</b>	The Borough will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA FMA, FMA SWIFT, Municipal Budget, County Budget, Property Owners		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	2, 3		
<b>Benefits:</b>	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will enhance the Borough's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem continues	
	Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas	
	Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event	



## Action 2025-SussexB-05. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Planning Board, Borough Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Borough does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Borough in identifying and prioritizing properties to mitigate.		
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Borough Budget		
<b>Implementation Timeline:</b>	Within 2 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.		
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will create a new Borough capability, while enhancing its current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		Current problem remains
	Only share opportunities when notified of grant funding		May not be enough time to garner interest or write application
	Wait for information from the State on flood-damaged properties		May be a delay in notice



## Action 2025-SussexB-06. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Engineering, Building Department, Borough Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Borough does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Borough staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Borough Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Borough and assure the Borough's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Borough's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-SussexB-07. Critical Facilities in the Floodplain

<b>Lead Agency:</b>	Facility Managers		
<b>Supporting Agencies:</b>	Emergency Management, Floodplain Administrator		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Borough has three critical facilities located in the floodplain including Clove River Dam, Public Works Garage/Sewer Department, and a JCP&L substation.		
<b>Description of the Solution:</b>	Coordinate with the facility managers at the Clove River Dam, Public Works Garage/Sewer Department, and a JCP&L Substation in the Borough to support the mitigation of vulnerable structures via retrofit (e.g., elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Borough Budget, Facilities		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action will remove or reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders.		
<b>Impact on Socially Vulnerable Populations:</b>	Retrofitting or relocating the identified structures will benefit socially vulnerable populations, as individuals within these populations rely on resources from various government facilities, transportation facilities, and medical and senior care facilities.		
<b>Impact on Future Development:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Critical Facilities/Lifelines:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Capabilities:</b>	This action will enhance the Borough's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Floodproof existing structures	May not necessarily reduce risk	
	Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function	





## Action 2025-SussexB-08. Dam Owner Partnership

<b>Lead Agency:</b>	Borough OEM		
<b>Supporting Agencies:</b>	NJDEP, Dam Owners		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Clove River Dam, a critical infrastructure, is located in the 1- and 0.2-percent flood hazard areas. The Borough also has two high-hazard potential dams, the Clove River Dam and Paulinskill Water Shed #2 Dam, within its jurisdiction. These structures have the potential to impact those living nearby.		
<b>Description of the Solution:</b>	The Borough will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Borough OEM and shared with the County OEM.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5, 7		
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.		
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.		
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Borough will be unaware of any safety concerns for the dam or its condition	
	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	
	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory	



## Action 2025-SussexB-09. Increase Winter Storm Capabilities

<b>Lead Agency:</b>	Public Works		
<b>Supporting Agencies:</b>	Borough Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Borough has aging equipment and limited manpower for a long duration winter storm. Not having the capabilities to respond to a long duration severe winter weather event can result in snow-covered roadways, which can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	The Borough will work to secure funding for aging equipment and replace as necessary. The Borough will also explore shared services with other municipalities/county/state Public Works departments and establish agreements with private contractors for long duration storms.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	Borough Budget, HSGP, FTA Emergency Relief Program		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 5, 6		
<b>Benefits:</b>	This action will protect the transportation lifeline by keeping roadways open and clear for emergency response and residential use.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by snow-covered roads.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be impacted by snow-covered roads.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.		
<b>Impact on Capabilities:</b>	This action will expand the Borough's winter weather response and preparation capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the severity, but decrease the frequency, of severe weather events such as nor'easters and severe winter weather. This action takes in account the chance of heavier snowfalls.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Rely only on mutual aid	Aid may not be available during the storm event	
	Rely solely on hired contractors	May not be available depending on storm severity	



## Action 2025-SussexB-10. Generators at Critical Facilities

<b>Lead Agency:</b>	Engineering								
<b>Supporting Agencies:</b>	Public Works, Fire Department, Borough Administration								
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>								
<b>Description of the Problem:</b>	Borough Hall and the Fire Station, both critical facilities, do not have backup generators to support continuity of operations. The Fire Station is also the Borough's Emergency Operations Center. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.								
<b>Description of the Solution:</b>	<p>The Borough Engineer will research what size generator is needed to power the Borough Hall. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the Borough Hall.</p> <p>The Engineer will also review the generator in place at the Fire House to ensure that it has the capacity to support its use as an Emergency Operations Center. If the generator is lacking the capacity needed, the Borough will replace the generator with the correct sized generator.</p> <p>Public Works will be responsible for maintenance of generators.</p>								
<b>Estimated Cost:</b>	Medium								
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget								
<b>Implementation Timeline:</b>	Within 5 years								
<b>Goals Met:</b>	1, 2, 5, 6, 7								
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.								
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.								
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.								
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.								
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.								
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.								
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)								
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)								
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">Action</th><th style="width: 50%;">Evaluation</th></tr> </thead> <tbody> <tr> <td>No Action</td><td>Current problem remains</td></tr> <tr> <td>Microgrid</td><td>Costly and difficult to implement.</td></tr> </tbody> </table>			Action	Evaluation	No Action	Current problem remains	Microgrid	Costly and difficult to implement.
Action	Evaluation								
No Action	Current problem remains								
Microgrid	Costly and difficult to implement.								



	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.
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## Action 2025-SussexB-11. Streambank Stabilization

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	-																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Clove River Dam is a flood risk. The County route and local road run over the Clove Brook which if flooded would take out two bridges that separate the Firehouse from the rest of the Borough. Flood risk could be reduced through stream bank stabilization surrounding confluence of Clove Brook and Papakating Creek.																
<b>Description of the Solution:</b>	The Borough will aim to reduce flood risk through stream bank stabilization surrounding confluence of Clove Brook and Papakating Creek.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Municipal Budget																
<b>Implementation Timeline:</b>	3 years																
<b>Goals Met:</b>	2																
<b>Benefits:</b>	This action will prevent erosion along the confluence of Clove Brook and Papakating Creek, protecting property and infrastructure from further impact.																
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding from the Clove Brook and Papakating Creek. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.																
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding from the Clove Brook and Papakating Creek, permitting first responders to traverse the roadways safely.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. These periods of intense rain may lead to more instances of flooding and increased erosion.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input checked="" type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input checked="" type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input checked="" type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
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<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Remove properties impacted by stream overflow</td><td>Costly</td></tr><tr><td>Construct floodwall to prevent flooding</td><td>Cost prohibitive and could ruin natural floodplain function</td></tr></table>	Action	Evaluation	No action	Current problem continues	Remove properties impacted by stream overflow	Costly	Construct floodwall to prevent flooding	Cost prohibitive and could ruin natural floodplain function								
Action	Evaluation																
No action	Current problem continues																
Remove properties impacted by stream overflow	Costly																
Construct floodwall to prevent flooding	Cost prohibitive and could ruin natural floodplain function																



## Action 2025-SussexB-12. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Zoning Office, Borough Administration, NFIP State Coordinator, FEMA Regional Office		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	<p>The Borough's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Borough's ordinance requires update.</p>		
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.</p>		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5,7		
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>		
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>		
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>		
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>		
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>		
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem exists	
	Modify existing flood damage prevention ordinance	Time intensive	





	Leave NFIP	Residents lose flood insurance coverage
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## Action 2025-SussexB-13. Dam Armoring

<b>Lead Agency:</b>	Public Works																
<b>Supporting Agencies:</b>	Engineering, Dam Owners																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Lake Rutherford Dam (located in High Point State Park) and Colesville Reservoir Dam (located on Brink Road) require upgrades to reduce the chance of dam failure. The areas the dams are located in have experienced flooding in the past, heightening the chance of dam failure.																
<b>Description of the Solution:</b>	The Public Works manager will complete in progress efforts to armor Lake Rutherford Dam and Colesville Reservoir Dam.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	HMGP, BRIC, FMA, High Hazard Potential Dam (HHPD) Grant, Borough Budget																
<b>Implementation Timeline:</b>	3 years																
<b>Goals Met:</b>	1, 2, 5, 7																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better protection within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as the dams are strengthened.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will improve the integrity of the identified dams.																
<b>Impact on Capabilities:</b>	Not applicable																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Demolish dams and return natural state</td><td>May increase flood risk</td></tr><tr><td>Elevate or acquire all surrounding properties</td><td>Cost prohibitive, unrealistic</td></tr></table>			Action	Evaluation	No action	Current problem remains	Demolish dams and return natural state	May increase flood risk	Elevate or acquire all surrounding properties	Cost prohibitive, unrealistic						
Action	Evaluation																
No action	Current problem remains																
Demolish dams and return natural state	May increase flood risk																
Elevate or acquire all surrounding properties	Cost prohibitive, unrealistic																



## Action 2025-SussexB-14. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input checked="" type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP) </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP) </div> </div>		
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI) </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES) </div> </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<div style="display: flex; justify-content: space-between;"> <div><b>Action</b></div> <div><b>Evaluation</b></div> </div>		



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-SussexB-15. Clove River Dam Rehab

<b>Lead Agency:</b>	Municipal Engineer																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Clove River Dam is a Class I High Hazard Dam that is located on Clove Acres Lake. The dam is owned by the Borough. Failure of the dam could result in inundation of densely populated areas, recreational areas, critical facilities and community lifelines, and local roadways including Elizabeth Avenue, Newton Avenue, Valley Road, School Road, and State Route 23. Although the dam was last inspected in 2023 and found to be in fair condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work to complete an engineering study of Clove River Dam. The Borough will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Borough will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-SussexB-16. Paulinskill Water Shed #2 Dam Rehab

<b>Lead Agency:</b>	Green Hills Estate POA																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Paulinskill Water Shed #2 Dam is a Class I High Hazard Dam that is located along the Moores Brook. The dam is owned by the Green Hills Estate POA. Failure of the dam could result in inundation of densely populated areas, wooded areas, critical facilities and community lifelines, and local roadways including Glenn Terrace and Swartwood Road. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Green Hills Estate POA to complete an engineering study of Paulinskill Water Shed #2 Dam. The Borough will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Borough and the Green Hills Estate POA will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
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	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## 24. TOWNSHIP OF VERNON

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Vernon with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Vernon, describes who participated in the planning process, assesses Vernon's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 24.1 HAZARD MITIGATION PLANNING TEAM

The Township of Vernon identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 24-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 24-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Ken Clark, EMC Address: 21 Church Street, Vernon, NJ Phone Number: (973) 600-7612 Email: kclark@vernontwp.com	Name/Title: Dan Young, Police Chief Address: 21 Church Street, Vernon, NJ Phone Number: (973) 764-6155 Email: dbyoung43@vernonpolice.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Paul Black, Construction Official Address: 21 Church Street, Vernon, NJ Phone Number: (973) 764-4055 x2253 Email: pblack@vernontwp.com	
<b>Additional Contributors</b>	
Name/Title: Ken Clark, EMC Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved final draft annex.	
Name/Title: Mark Vogel, Former Deputy EMC Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Cory Stoner, Township Engineer Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved final draft annex.	
Name/Title: Jessica Caldwell, Township Planner Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved final draft annex.	
Name/Title: Ed Babcock, Public Works Superintendent Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved final draft annex.	
Name/Title: Paul Black, Construction Official Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved final draft annex.	



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Name/Title: Marcy Gianattasio, Municipal Clerk

Method of Participation: Assisted in the completion of municipal worksheets.

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Name/Title: Tina Kraus, Business Administrator

Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved final draft annex.

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Name/Title: Lauren Shaw, Municipal Clerk

Method of Participation: Reviewed and approved final draft annex.

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Name/Title: Dan Young, Police Chief

Method of Participation: Assisted in the completion of municipal worksheets.

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## 24.2 COMMUNITY PROFILE

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Vernon Township is located in the northeast corner of Sussex County. It has a total area of 70.6 square miles. The Township is most populous municipalities and has the largest area in the county. It is bordered to the north by New York State, to the south by Hardyston Township, to the east by Passaic County, and to the west by Wantage Township. The following unincorporated communities are located within the Township: Owens, Willow Brook, Wantage, Independence Corner, McAfee, Sand Hills, Glenwood, Vernon Valley, DeKays, Highlands Lakes, Kampe, Cherry Ridge, and Wawayanda. There are many ponds and streams located throughout the Township and include, but not limited to: Highland Lake, Wawayanda Lake, Lake Wildwood, Double Kill, Wawayanda Creek, Pochuck Creek and its tributaries, Black Creek and its tributaries, and the Walkkill River. According to the U.S. Census, the 2020 population for Vernon was 22,358, a 6.6-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 15.3-percent of the population is 5 years of age or younger, 14.5-percent is 65 years of age or older, 4.9-percent is non-English speaking, 14.8-percent is below the poverty threshold, and 12-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Township of Vernon, 21-percent of households earn less than the basic cost of living and are considered socially vulnerable.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 24.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Vernon performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities



- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Vernon to identify opportunities for integrating mitigation concepts into ongoing Township procedures.

### 24.3.1 Planning and Regulatory Capability and Integration

Table 24-2 summarizes the planning and regulatory tools that are available to Vernon.

Table 24-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	Chapter 205: Construction Codes, Uniform	State & Local	Construction Official
How has or will this be integrated with the HMP and how does this reduce risk? <i>The State Uniform Construction Code, building subcode, is hereby adopted and incorporated as fully as if set forth at length herein. The provisions shall be controlling in the construction, alteration, renovation, rehabilitation, maintenance, occupancy, and use of all buildings and structures therein contained within the corporate limits of the Township. The Construction Official is the chief administrator of the enforcing agency.</i>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 330: Land Development	Local	Zoning Officer, Code Enforcement Officer
How has or will this be integrated with the HMP and how does this reduce risk? <i>The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.</i>				
<b>Subdivision Code</b>	Yes	Chapter 330, Article VI: Subdivision and Site Plan Review and Approval	Local	Municipal Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.</i>				
<b>Site Plan Code</b>	Yes	Chapter 330, Article VI: Subdivision and Site Plan Review and Approval	Local	Municipal Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*Approval of a site plan is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.*

<b>Stormwater Management Code</b>	Yes	Chapter 330, Article XII: Stormwater Management	Local	Municipal Land Use Board, Township Engineer
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How has or will this be integrated with the HMP and how does this reduce risk?

*The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.*

<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property
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How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<ul style="list-style-type: none"> <li>Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.</li> <li>Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.</li> <li>Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.</li> <li>Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.</li> <li>Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?</li> <li>Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?</li> </ul>				

Not all provisions of this law have become effective at the time of the writing of this plan.

<b>Growth Management</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Environmental Protection Ordinance(s)</b>	Yes	Chapter 478: Soil Erosion and Sediment Control, Chapter 483: Soil Removal, Chapter 484: Soil Fill Placement, Chapter 369: Nuclear-Free Zone, Chapter 227: Dumping/Litter, Chapter 440: Pesticides	Local	Construction Code Official or Municipal Engineer; Joint Land Use Board; Zoning Officer; Township Attorney; PD / DOH / NJDEP / Zoning; DOH

How has or will this be integrated with the HMP and how does this reduce risk?

**Chapter 478: Soil Erosion and Sediment Control** – The purpose of this chapter is to control soil erosion and sediment damages and related environmental damage by requiring adequate provisions for surface water retention and drainage and for the protection of exposed soil surfaces in order to promote the safety, public health, convenience and general welfare of the community.

**Chapter 483: Soil Removal** – The Mayor and Township Council of the Township of Vernon find and determine that the unregulated and uncontrolled relocation, filling, excavation and removal of soil on a large scale or for sale or for use other than on the premises has or may result in conditions detrimental to the public safety, health, and general welfare, substantially hampering and deterring the efforts of the Township of Vernon to effectuate the general purpose of municipal planning.

**Chapter 484: Soil Fill Placement** – The Township Council finds that the unregulated and uncontrolled placement and movement of soil and other mineral deposits can result in conditions detrimental to the public safety, health and general welfare. Such conditions substantially hamper and deter the efforts of the Township to effectuate the general purposes of municipal planning. Soil movement operations and filling operations should relate to the overall physical development of the area within which the operation is located. It is essential that all soil movement operations and filling operations be reviewed and approved by the Township Zoning Officer and/or Township Engineer. All soil movement operations and filling operations must be conceived and operated in such a way that there will be no appreciable harmful effects to the environment. In order to best ensure that all soil movement operations and filling operations are an asset to the Township of Vernon, rather than a liability, all such operations shall adhere to the conditions, restrictions and provisions outlined in this chapter.

**Chapter 369: Nuclear-Free Zone** – The development, production, storage, deployment, usage, landfilling, fabrication, destruction and transportation of radioactive materials in and through the Township of Vernon is hereby prohibited. The Township Attorney is authorized to take appropriate action to enforce the prohibitions. The prohibitions contained in



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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*this chapter shall not apply to naturally occurring materials containing low, normal or background levels of radiation. This chapter shall not apply to consumer products in general use such as smoke detectors and time pieces. Nor shall it apply to commonly accepted medical uses such as x-rays and pharmaceuticals. This chapter shall not apply to movement for burial or storage elsewhere of radioactive-contaminated soil or other materials.*

*Chapter 227: Dumping/Litter – The careless, improper, uncontrolled and unauthorized discarding, disposal, or dumping of solid waste, bulky waste, garbage, liquid waste, litter and refuse upon public or private lands, roadways, buildings or in receptacles not owned, leased or occupied by the person doing so is a public nuisance, cause of civic disgrace, a health, fire and safety hazard and pollutant of the environment of and within the Township of Vernon which should be banned, controlled and regulated for the advancement and protection of the public health, safety and welfare. Currently the Township has two ordinances of record each addressing portions of the problem, Ordinance Nos. 85-14 and 93-5. It is determined by the Mayor and Township Council that consolidation of these two separate ordinances into one comprehensive ordinance will result in more efficient advancement of the policy goals encompassed by both and clarify for the agency enforcing same and the public regulated thereby the conduct intended to be addressed and prescribed.*

*Chapter 440: Pesticides – The purpose of this chapter is to regulate the use and application of pesticides, as herein defined, so as to limit human exposure, prevent contamination of surface and ground water supplies, prevent loss of soil fertility and prevent the destruction or endangerment of those species of wildlife and their habitat not defined as pests under the definition of this chapter.*

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 275	Federal, State & Local	Construction Official
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How has or will this be integrated with the HMP and how does this reduce risk?

*It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:*

- A. Protect human life and health;*
- B. Minimize expenditure of public money for costly flood control projects;*
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;*
- D. Minimize prolonged business interruptions;*
- E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard;*
- F. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;*
- G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and*
- H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*

<b>Wellhead Protection</b>	Yes	Chapter 330	Local	Land Use Department and Engineering Department
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Emergency Management Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	Master Plan, December 1995; Re-examined July 2010, December 2011, July 2016, February 2022	Local	Land Use Department and Engineering Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>This Master Plan is intended to provide direction to elected and appointed officials, the general citizenry, landowners, developers, and other area governmental entities for short-term and long-term growth and development within Vernon. It is a policy guide for community development decisions, community facility planning and budgeting, and a comprehensive guide for the future development of housing, employment, and cultural and educational opportunities for the Vernon community. The plan must be able to respond to changing conditions such as increased population and demand for public services, housing supply, legislative policies, technological development, and economic circumstances.</i>				
<b>Capital Improvement Plan</b>	Yes	Municipal Budget	Local	Township Administrator
How has or will this be integrated with the HMP and how does this reduce risk? <i>The municipal budget, which acts as the Township's Capital Improvement Plan, includes various potential projects which may assist in hazard mitigation efforts.</i>				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	Yes	Stormwater Management Plan, March 2023	Local	Land Use Department and Engineering Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. The plan also addresses the review and update of existing ordinances and other planning documents to allow for project designs that include low impact development techniques. The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought.</i>				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	Yes	2023 Open Space & Recreation Plan Update	Local	Land Use Department and Planner
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Open Space and Recreation Plan provides updated mapping, revisits the 2010 goals and greenways, and offers a short and long-term plan for the municipality. This plan update will help guide future planning by providing a supporting framework for decision-making. Implementing the recommendations in the plan update will protect environmental health, recreational opportunities, and aesthetic character of Vernon Township.</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Urban Water Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Habitat Conservation Plan</b>	Yes	Wallkill River National Wildlife Refuge Comprehensive Conservation Plan, February 2009	Federal	US Fish and Wildlife Service
How has or will this be integrated with the HMP and how does this reduce risk? <i>This Comprehensive Conservation Plan (CCP) for the Wallkill River National Wildlife Refuge (refuge) was prepared pursuant to the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 6688dd, et seq.; Refuge Improvement Act). An Environmental Assessment (EA), required by the National Environmental Policy Act of 1969 (NEPA), was prepared with the draft CCP.</i>  <i>This final CCP presents the combination of management goals, objectives, and strategies that will best achieve the vision for the refuge; contribute to the mission of the National Wildlife Refuge System (Refuge System); achieve refuge purposes; fulfill legal mandates; address key issues; incorporate sound principles of fish and wildlife management, and serve the American public. This CCP will guide management decisions and actions on the refuge over the next 15 years. It will also help communicate priorities to the natural resource agencies of the states of New York and New Jersey, conservation partners, local communities, and the public.</i>				
<b>Economic Development Plan</b>	Yes	Master Plan, December 1995; Re-examined July 2010, December 2011, July 2016, February 2022	Local	Land Use Department and Engineering Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>The purpose of the Economic Development Plan element is to evaluate the economic stability of a community and determine job and/or industry deficiencies. In order to provide a comprehensive view of the present and future economic development of Vernon Township, county-wide and township-wide economic trends are analyzed. Specifically, employment categories and occupational characteristics were reviewed, and commuting patterns discussed. Future employment projections are also presented. A brief review of current tax revenues is also discussed.</i>				
<b>Shoreline Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Community Wildfire Protection Plan</b>	Yes	Community Wildfire Protection Plan	Local	Fire Department
How has or will this be integrated with the HMP and how does this reduce risk? <i>The plan has goals to reduce the vulnerability of communities across the State to damage from wildfire, identify at risk wildland-urban interface areas, reduce excessive wildland fuel accumulations in and around areas of human development, increase community awareness of wildfire issues in New Jersey and promote opportunities to educate the public concerning the same, develop cohesive interagency wildfire risk reduction strategy, and develop partnerships to reduce the wildfire hazards.</i>				
<b>Community Forest Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Transportation Plan</b>	Yes	Master Plan, December 1995; Re-examined July 2010, December 2011, July 2016, February 2022	Local	Land Use Department and Engineering Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The Circulation Plan Element of the Master Plan presents an overview of the current circulation systems, including road jurisdiction, traffic volumes, functional road classification system, and planned road improvements for Vernon Township based on County and State Plans.</i></p>				
<b>Agriculture Plan</b>	Yes	Comprehensive Farmland Preservation Plan, March 2023	Local	Land Use Department and Engineering Department
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>Vernon Township's vision for farmland preservation is to:</i></p> <ul style="list-style-type: none"> <li>• <i>Secure the agricultural land base through farmland preservation with a focus on retaining significant masses of agricultural land in agricultural production</i></li> <li>• <i>Bolster the industry of agriculture including agritourism which will contribute to the economic viability of the agricultural industry</i></li> <li>• <i>Proactively curtail conflicts with non-agricultural neighbors</i></li> <li>• <i>Ensure adequate water for all land uses while protecting critical groundwater recharge areas</i></li> <li>• <i>Prevent sprawl-type development in the Township through proactive planning</i></li> <li>• <i>Provide consumers with access to locally grown sources of horticultural and fresh food products</i></li> <li>• <i>Maintain the small-town, rural lifestyle that characterizes the farms in Vernon Township.</i></li> </ul>				
<b>Climate Action/ Resilience/Sustainability Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Tourism Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Business/ Downtown Development Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Vernon Township Emergency Operations Plan, 2023	Local	Emergency Management
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The Emergency Operations Plan aims to assess the Township's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i></p>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 24.3.2 Development and Permitting Capability

Table 24-3 summarizes the capabilities of Vernon to oversee and track development.

Table 24-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	Building Department and Planning/Zoning
<ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>		
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain Development
Do you have a buildable land inventory?	Yes	The buildable land inventory can be found within the Township's Master Plan.
<ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>		
Describe the level of buildout in your jurisdiction.	N/A	Vernon Township's designation as part of the Highlands Region limits the potential for development in the Preservation Area. Approximately 66 percent of the Township is located in the Highlands Preservation Area, where new development is limited to one acre per 88 acres of forested land or 25 acres of cleared land. Existing development remains permitted under existing zoning and can expand up to 125 percent of its existing footprint. The remaining approximately 34 percent of the municipality has less stringent restrictions on development.





### 24.3.3 Administrative and Technical Capability

Table 24-4 summarizes potential staff and personnel resources available to Vernon and their current responsibilities that contribute to hazard mitigation.

Table 24-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	<p>The Municipal Land Use Board has nine members and 4 alternate members. The Municipal Land Use Board follows the provisions Municipal Code Chapter 330 and the Municipal Land Use Law; the Board also has all powers formerly exercised by the Zoning Board of Adjustment.</p> <p>The Municipal Land Use Board may be authorized by the governing body from time to time to prepare a program of municipal capital improvement projects projected over a term of at least six years, and amendments thereto. Such program may encompass major projects being currently undertaken or future projects to be undertaken, with federal, state, county and other public funds or under federal, state or county supervision.</p>
Zoning Board of Adjustment	No	The Vernon Township Municipal Land Use Board acts as a Joint Board.
Planning Department	Yes	<p>The Vernon Township Division of Planning and Zoning is within the Vernon Township Department of Planning/Land Use and Zoning and is staffed by a zoning officer.</p> <p>This division's primary responsibility is to provide assistance and guidance in the development of lands in Vernon Township pursuant to the land use ordinance, the master plan and New Jersey's Municipal Land Use Law (MLUL). Its duties encompass everything from enforcing township codes and ordinances, including enforcement of the vacant/abandoned property registration requirement, to providing customer support to residents looking to make improvements to their properties.</p>
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	<p>The purpose of the Vernon Township Environmental Commission is to provide for the protection, development, or use of natural resources, including water resources, located within the township.</p> <p>The commission has the power to conduct research into the use and possible use of the open land areas of the township and may coordinate the activities of unofficial bodies organized for similar purposes. From time to time, the commission may recommend to the land use board plans and programs for inclusion in a township master plan and the development and use of the open areas of the township.</p>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		The commission consists of five members, all township residents, appointed by the mayor. One of the five members is a member of the township's land use board. Members serve three-year, staggered terms. A non-voting high school student member, whose term will last one school year, may also be appointed.
Open Space Board/Committee	No	There is no Open Space Committee. Instead, the Township Council performs the actions of an Open Space Committee.
Economic Development Commission/Committee	Yes	The purpose of the Vernon Township Economic Development Advisory Committee (amended via Resolution #21-186 to be a mayoral advisory committee) is to encourage, promote and assist business growth, increase employment opportunities, and improve the quality of life of Vernon Township residents while enhancing the area environment. The committee consists of up to eleven members, all of whom are appointed by the mayor and serve for a term of one year.
Public Works/Highway Department	Yes	<p>The Vernon Township Department of Public Works provides many of the basic services we tend to take for granted. Its personnel are responsible for a vast range of duties in and around the township including the following: maintenance and repair of the township's approximately 106 miles of streets and rights-of-way; plowing, sanding, and salting of roads during the winter; operation of the township recycling center; maintenance, service and repair of all municipal vehicles and equipment including police, fire and rescue squad vehicles; maintenance of all township facilities, parks, playgrounds, and athletic fields; maintenance, repair, and replacement of all signs throughout the township; painting of crosswalks, railroad crossings and handicap spaces in public parking lots; and administration of the Clean Communities Program</p> <p>When police need to set up a detour or the building department must board up an abandoned dwelling, they call public works. When a car accident results in fluids on the roadway, public works is on the scene to sop up the mess. And during the winter months, manpower is on-call around the clock to respond to calls for winter maintenance of roads and vehicles.</p>
Construction/Building/Code Enforcement Department	Yes	<p>The Vernon Township Division of Building is within the Vernon Township Department of Planning and Development. Commonly referred to as the building department, it enforces and administers the regulations of the New Jersey Uniform Construction Code (UCC).</p> <p>The UCC is the state's approved building, plumbing, electrical, fire and mechanical subcodes.</p> <p>Supervised by a state-licensed construction official, this division reviews construction permit applications, issues construction permits, inspects construction projects, and coordinates the activities of the subcode officials</p>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Emergency Management/Public Safety Department	Yes	Within the Vernon Township Department of Public Safety is the Office of Emergency Management. During times of emergency, its purpose is to preserve the resources and property of Vernon and its residents and to protect the health, welfare, and safety of the public. When disaster strikes, Vernon's emergency management coordinator interacts at the local level with police, fire, public works, public health, schools, etc. and at the county level with the Sussex County Division of Emergency Management .
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	Neighboring communities, County
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	Yes	There are no job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk
Other: Recreation Department	Yes	<p>The Vernon Township Recreation Department, also known more formally as the Vernon Township Department of Recreation, Community Development and Senior Services, offers recreational opportunities and facilities for residents of all ages.</p> <p>Among its many duties, this department does the following: maintains all township parks, playgrounds, ball fields and other recreational facilities; creates and oversees recreational programming for children and adults; issues use permits for township fields, parks, and recreation facilities; administrates and supervises senior citizen programs; and assists the mayor with formulation and implementation of programs geared towards encouraging public interest in community development</p>
Other: Board of Recreation	Yes	<p>The Vernon Township Board of Recreation acts in an advisory capacity with respect to functions such as the establishment of rules for township parks and facilities, program development, capital acquisitions, facility improvements and maintenance, anticipated fees and program participation levels, etc.</p> <p>It makes recommendations, reviews recreation initiatives, engages volunteers and promotes the township's parks and recreation programs.</p> <p>The board consists of up to seven township residents and two alternates, all of whom are appointed by the mayor and serve a three-year term.</p>
Other: Beautification Committee	Yes	<p>The Vernon Township Beautification Committee was established in February of 2016 to address ways to improve the aesthetic value of Vernon.</p> <p>With Vernon's master plan identifying tourism as Vernon's main industry, the physical appearance of township</p>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		corridors and entrances are critical to Vernon's economy as well as the region's economy and vitality.  This citizens' advisory committee consists of seven to nine members appointed by the mayor, with each member serving a one-year term.
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Engineer/Planner
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineer
Planners or engineers with an understanding of natural hazards	Yes	Engineer
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Emergency Management Coordinator
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 24.3.4 Fiscal Capability

Table 24-5 summarizes financial resources available to Vernon.

Table 24-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes – Sewer Only
Impact fees for homebuyers or developers of new development/homes	No



Financial Resources	Accessible or Eligible to Use? (Yes/No)
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 24.3.5 Education and Outreach Capability

Table 24-6 summarizes the education and outreach resources available to Vernon.

Table 24-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	No	-
Personnel skilled or trained in website development	Yes	Individual Contractor
Hazard mitigation information available on your website	Yes	Information can be found on the Emergency Management webpage and Public Works webpage.
Social media for hazard mitigation education and outreach	Yes	Emergency Management Facebook page
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	No	Vernon Township does not have a warning system or service, but Sussex County utilizes Swift 911.
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	The Township utilizes social media, its website, and newsletter. Township offices and departments participate in outreach events and engage with constituents through service tables.

### 24.3.6 Community Classifications

Table 24-7 summarizes classifications for community programs available to Vernon.

Table 24-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-



Program	Participating? (Yes/No)	Classification	Date Classified
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	3y*	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	Yes	Bronze	November 3, 2017
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

\* = At the time of this plan update, the date classified for the Public Protection (ISO Fire Protection Classes 1 to 10) was not able to be obtained.

### 24.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 24-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 24-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor'easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate





## 24.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 24-1 is responsible for maintaining this information.

### 24.4.1 NFIP Statistics

Table 24-9 summarizes the NFIP policy and claim statistics for Vernon.

Table 24-9. Vernon NFIP Summary of Policy and Claim Statistics

# Policies	19
# Claims (Losses)	21
Total Loss Payments	\$121,236.16
# Repetitive Loss Properties (NFIP definition)	2
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

*Source: FEMA Region II 2024*

### 24.4.2 Flood Vulnerability Summary

Table 24-10 provides a summary of the NFIP program in Vernon.

Table 24-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Vernon Crossing Road is a low-lying area in the Township prone to flooding.
Do you maintain a list of properties that have been damaged by flooding?	There have been no properties damaged enough in the Township to justify a list to be created. Structures have had minor flooded basements, but nothing with extreme damage has occurred to need a list created.
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown



NFIP Topic	Comments
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Building Department
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes – federal, state, and regional online resources.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Engineering and permit review
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	50%....
What are the barriers to running an effective NFIP program in the community, if any?	Staffing, financial capabilities, training
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	July 27, 1994
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 275: Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	September 12, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Municipal Land Use Board considers efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has subdivision and site plan ordinances.



NFIP Topic	Comments
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 24.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 24-11 through Table 24-13.

Table 24-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	3	0	0	3
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	5	0	0	5
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	13	0	0	13
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	14	0	0	14
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	6	0	0	6
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 24-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There has been no new major development or infrastructure constructed between 2019 to present.					

\* Only location-specific hazard zones or vulnerabilities identified.



Table 24-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
55-unit apartment building	Residential	55	7 Theta Drive, Vernon Township, NJ	None	Permit issued; Construction has begun

## 24.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Vernon's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 24.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 24-1 through Figure 24-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Vernon has significant exposure. The maps show the location of potential new development, where available.

Figure 24-1. Vernon Flood and Sinkhole Hazard Area Extent and Location Map

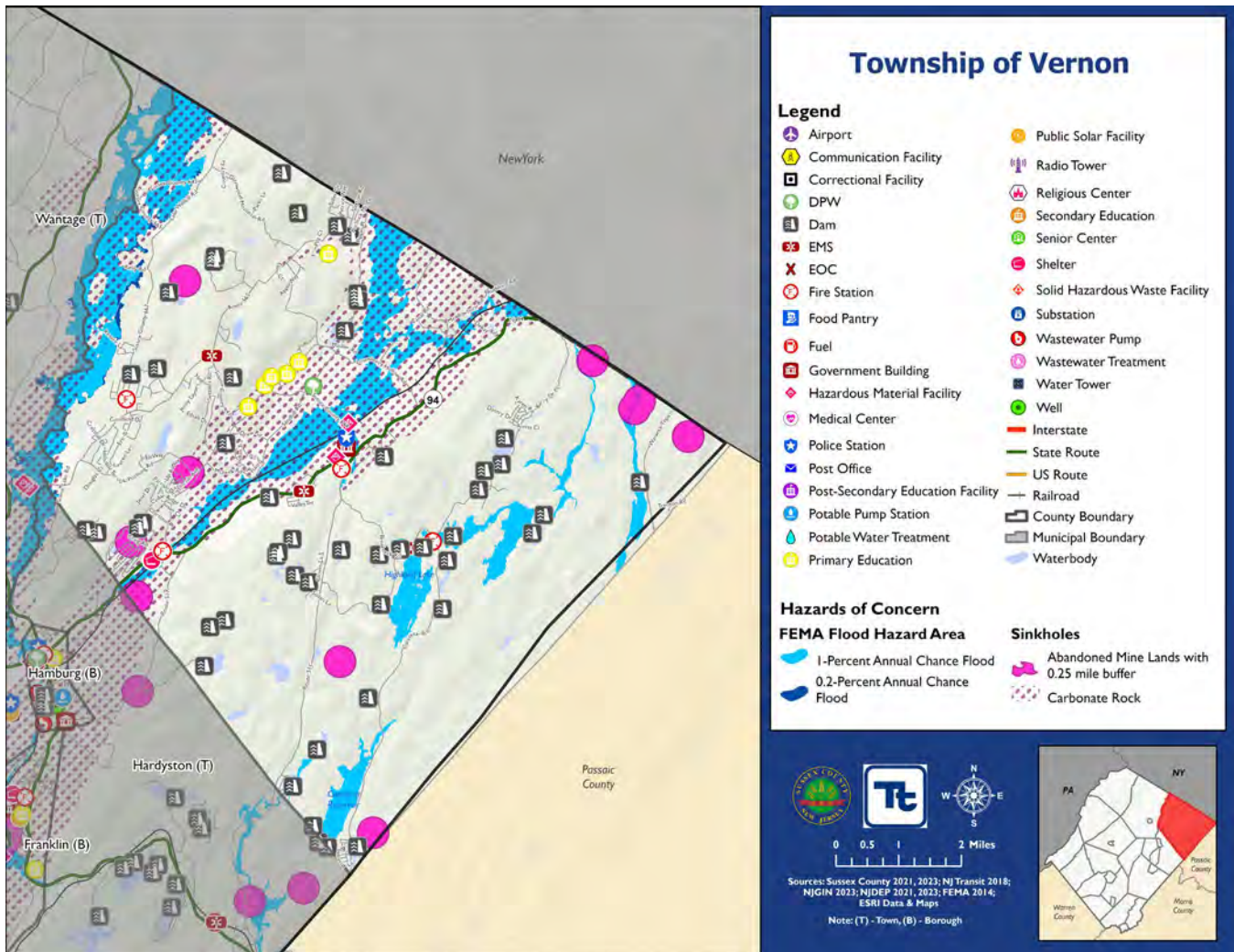




Figure 24-2. Vernon Hazardous Materials and Wildfire Hazard Area Extent and Location Map

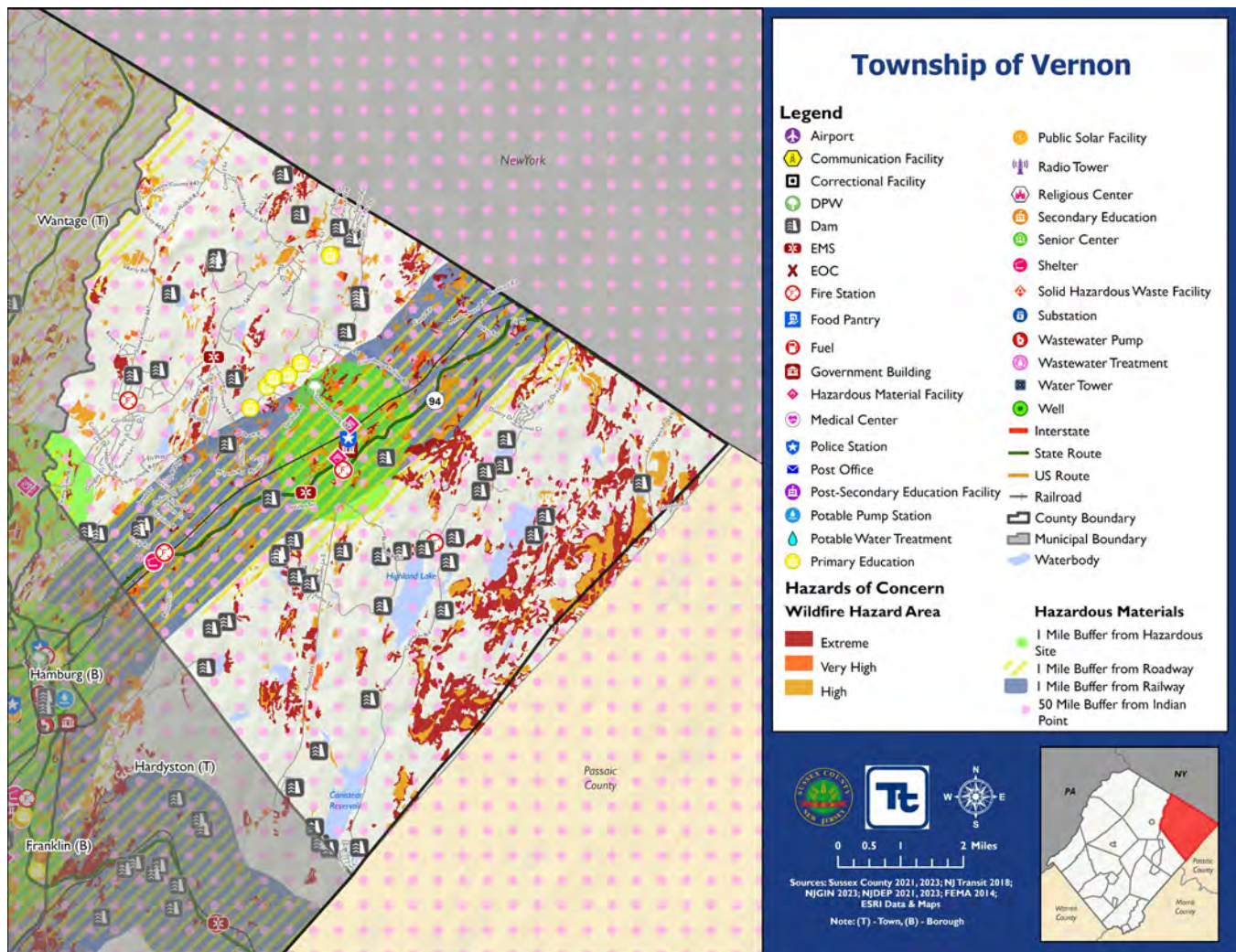
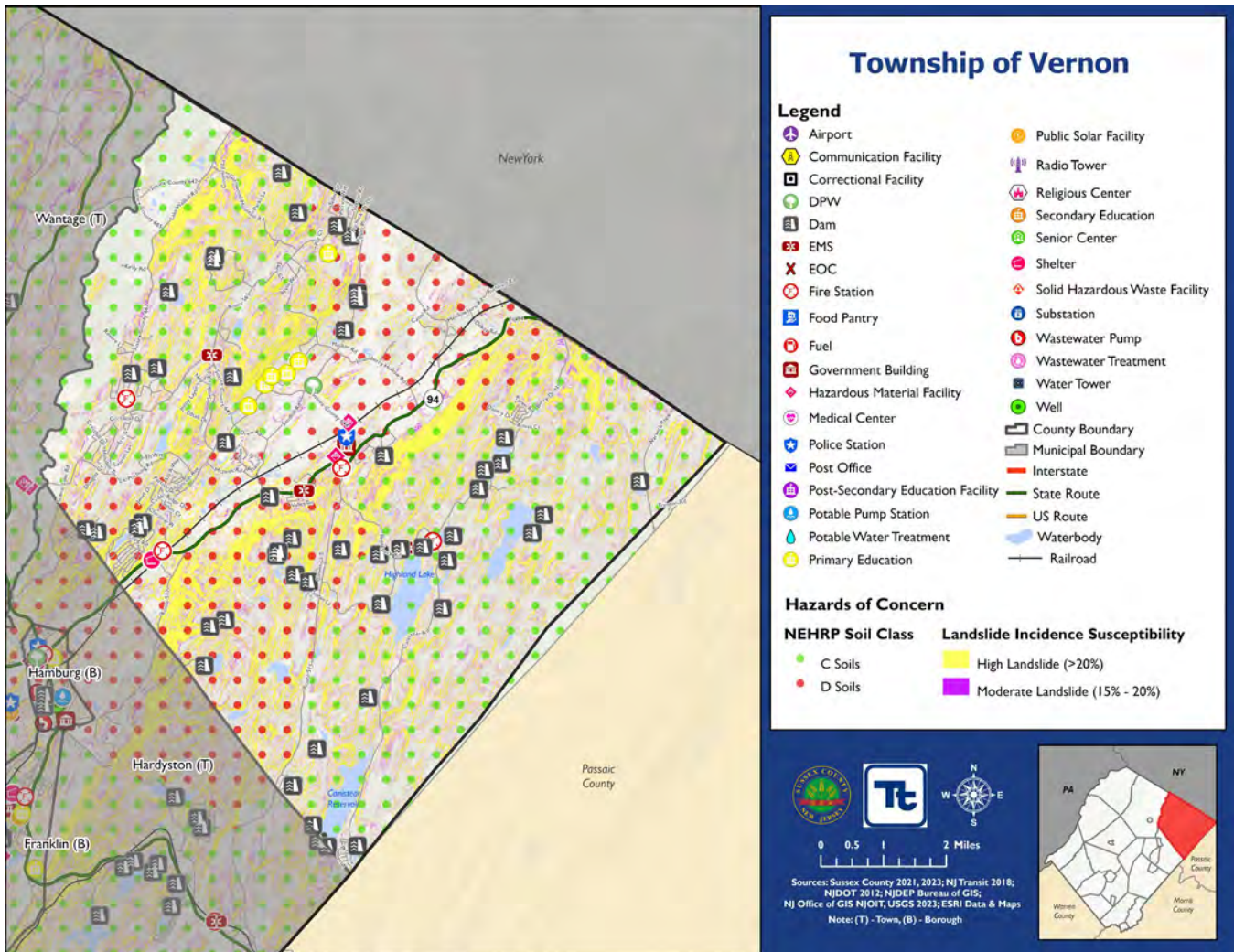




Figure 24-3. Vernon Landslide and NEHRP Soils Hazard Area Extent and Location Map





## 24.6.2 Hazard Event History

The history of natural and non-natural hazard events in Vernon is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 24-14 provides details on loss and damage in Vernon during hazard events since the last hazard mitigation plan update.

Table 24-14. Hazard Event History in Vernon

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Vernon
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	Loss of manpower during COVID-19 to assist with preventative measures.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Total clean-up costs, including trees downed, was \$26,016.81.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Storm clean-up took from January 31 – February 5, 2021 with a total cost of \$178,479.76.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Downed trees along the Lake Wanda dam beach. Total clean-up and repair costs were \$12,906.06.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 24.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Vernon .

### Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of



the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Vernon reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the hazard rankings were accurate.

Table 24-15 shows Vernon's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 24-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Medium
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 24-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 24-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Canistear Reservoir #2 Dam	Dam	Yes	Yes	2025-VernonTwp-09, 2025-VernonTwp-10	-
Dorothy Henry Library Branch	Shelter	Yes	Yes	2025-VernonTwp-09	-
East Cove Dam	Dam	Yes	Yes	2025-VernonTwp-09, 2025-VernonTwp-10	-
Hickory Park Dam	Dam	Yes	Yes	2025-VernonTwp-09, 2025-VernonTwp-10	-



Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Highland Lakes Dam	Dam	Yes	Yes	2025-VernonTwp-09, 2025-VernonTwp-10	-
Kohout Lake Dam	Dam	Yes	Yes	2025-VernonTwp-09, 2025-VernonTwp-10	-
Lake Wanda Dam	Dam	Yes	Yes	2025-VernonTwp-09, 2025-VernonTwp-10	-

Source: NJGIN 2023; Sussex County 2021, 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Vernon:

- Lake Panorama Dike
- Great Gorge Dam
- East Cove Dam
- Wawayanda Lake Dam
- Mountain Creek Lake Dam
- Upper West Highland Lake Dam
- Highland Lakes Dam
- Upper Highland Lake Dam
- Hidden Valley Lake Dam
- Canistear Reservoir #2 Dam
- Stump Pond Dam
- Pleasant Valley Lake Dam

#### 24.6.4 Identified Issues

After review of Vernon's hazard event history, hazard rankings, hazard location, and current capabilities, Vernon identified the following vulnerabilities within the community:

- Dams in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.
- The Township lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- Vernon experiences frequent storm damage from downed trees. The Township's roads are surrounded by vegetation over-growth throughout the Township's 68 square miles. There are four roads in particular (CR-515, CR-565, SR-94, and Canistear Road) which are particularly impacted by downed trees. The Township



has identified that 14 miles of vegetation management is needed to reduce impacts from trees to utility and vehicle rights-of-way. During storm events, delays of up to six hours are reported due to trees in the road.

- The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Township has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.
- The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has one repetitive loss property, but other properties may be impacted by flooding as well.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has several critical facilities in the floodplain including Canistear Reservoir #2 Dam, Dorothy Henry Library Branch, East Cove Dam, Hickory Park Dam, Highland Lakes Dam, Kohout Lake Dam, and Lake Wanda Dam.
- The Canistear Reservoir #2 Dam, East Cove Dam, Hickory Park Dam, Highland Lakes Dam, Kohout Lake Dam, and Lake Wanda Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has several high-hazard potential dams, including the Lake Panorama Dike, Great Gorge Dam, East Cove Dam, Wawayanda Lake Dam, Mountain Creek Lake Dam, Upper West Highland Lake Dam, Highland Lakes Dam, Upper Highland Lake Dam, Hidden Valley Lake Dam, Canistear Reservoir #2 Dam, Stump Pond Dam, and Pleasant Valley Lake Dam, within its jurisdiction. These structures have the potential to impact those living nearby.
- The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township is currently not part of the Firewise program.
- The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meet New Jersey's minimum requirement. The Township is currently working to update the Flood Damage Prevention Ordinance to be in-line with both State and Federal requirements, including New Jersey Department of Environmental Protection's Code Coordinated Ordinance. The ordinance will be sent for review by July 25, 2024.
- Heavy rains flood Wawayanda Road and Warwick Turnpike. A small stream connecting Kohout Lake and Parker Lake flows under Wawayanda Road; it is unknown if the Kohout Lake Dam, which is located along the Warwick Turnpike at Kohout Lake, contributes to the roadways flooding. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.





- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- Fire Stations in the Township are in need of emergency back-up generators; the stations are not only a critical facility and community lifeline themselves but are also used as warming and cooling centers. The MacAfee Station (88 State RT 94, McAfee, NJ 07428) does not have an emergency back-up generator; the Highland Lakes Station's (813 Canistear Road, Highland Lakes, NJ 07422) current generator is undersized and does not have the capacity to power the building should an emergency occur and impact power usage. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.
- Vernon Crossing Road is a low-lying area in the Township prone to flooding. The Black Creek, a tributary of Vernon Valley Lake, flows alongside and underneath the roadway. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- Lake Panorama Dike is a Class I High Hazard Dam that is located on Panorama Lake. The dam is owned by the Lake Panorama Community Association. Failure of the dam could result in inundation of populated areas, forested areas, recreation areas, and local roadways including Panorama Drive, Upper Notch Road, and Lakeview Drive Northwest. The dam was last inspected in 2023 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Great Gorge Dam is a Class I High Hazard Dam that is located on a tributary of the Black River. The dam is owned by the Mountain Creek Resort. Failure of the dam could result in inundation of forested and recreational areas. Although the dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- East Cove Dam is a Class I High Hazard Dam that is located on Wawayanda Lake. The dam is owned by the New Jersey Division of Parks and Forestry. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including Campsite Road. East Cove Dam is located upstream from the Double Kill Stream, which feeds into Laurel Pond. Laurel Pond is closely located to the Wawayanda Lake Dam, therefore should a failure occur at the East Cove Dam, it is possible the Wawayanda Lake Dam may be impacted by the influx of flood waters, and which could lead to a secondary dam failure. Although the East Cove Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Wawayanda Lake Dam is a Class I High Hazard Dam that is located on Wawayanda Lake. The dam is owned by the New Jersey Division of Parks and Forestry. Failure of the dam could result in inundation of forested and recreational areas. The Wawayanda Dam is located closely to Laurel Pond, which receives waters from the Double Kill Stream. This stream is closely located near the East Cove Dam. Should a dam failure occur at the East Cove Dam, it is possible the Wawayanda Lake Dam may be impacted by the influx of flood waters, from these waterways, which could lead to a secondary dam failure. Although the Wawayanda Lake Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Mountain Creek Lake Dam is a Class I High Hazard Dam that is located on a tributary of the Black River. The dam is owned by the Mountain Creek Resort. Failure of the dam could result in inundation of forested and recreational areas. The dam was last inspected in 2022 and found to be in poor condition, meaning the





risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

- Upper West Highland Lake Dam is a Class I High Hazard Dam that is located on Upper West Highland Lake. The dam is owned by the Highland Lakes Country Club and Community Association. Failure of the dam could result in inundation of densely populated areas, recreational areas, critical facilities and community lifelines, and local roadways including Upper Highlands Lake Drive, Waconia Road, Pocasset Road, and Breakneck Road. The Upper West Highland Lake Dam is closely located to the Upper Highland Lake Dam and Highland Lake Dam. Should a failure occur at any of these dams, cascading impacts from the flood waters may result in subsequent dam failures. Although the Upper West Highland Lake Dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Highland Lakes Dam is a Class I High Hazard Dam that is located on Highland Lake. The dam is owned by the Highland Lakes Country Club and Community Association. Failure of the dam could result in inundation of densely populated areas, recreational areas, critical facilities and community lifelines, and local roadways including Lakeside Drive East, Lakeside Drive, and Birch Road. The Highland Lakes Dam is closely located to the Upper West Highland Lake Dam and Upper Highland Lake Dam. Should a failure occur at any of these dams, cascading impacts from the flood waters may result in subsequent dam failures. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Upper Highland Lake Dam is a Class I High Hazard Dam that is located on Upper Highland Lake. The dam is owned by the Highland Lakes Country Club and Community Association. Failure of the dam could result in inundation of recreational areas, critical facilities and community lifelines, and local roadways including Lakeside Drive, Casco Road, and Breakneck Road. The Upper Highland Lake Dam is closely located to the Upper West Highland Lake Dam and Highland Lake Dam. Should a failure occur at any of these dams, cascading impacts from the flood waters may result in subsequent dam failures. Although the dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Hidden Valley Lake Dam is a Class I High Hazard Dam that is located on a tributary of the Pachuck Creek. The dam is owned by the National Winter Activity Center. Failure of the dam could result in inundation of populated areas, woodland areas, recreational areas, and local roadways including Curtis Drive, Meadow Lane, and Village Way. Although the dam was last inspected in 2024 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Canistear Reservoir #2 Dam is a Class I High Hazard Dam that is located on the Canistear Reservoir, leading into the Pacock Brook. The dam is owned by the City of Newark Department of Water and Sewer Utilities. Failure of the dam could result in inundation of forested and woodland areas, and potentially local roadways including Upper Dam Road and Lower Dam Road. Although the dam was last inspected in 2023 and found to be in fair condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.
- Stump Pond Dam is a Class I High Hazard Dam that is located on Pleasant Valley Lake. The dam is owned by the Pleasant Valley Country Club. Failure of the dam could result in inundation of densely populated areas, woodland areas, recreational areas, and local roadways including Woodland Drive, West Shore Drive, and North Shore Drive. The dam was last inspected in 2023 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.



- Pleasant Valley Lake Dam is a Class I High Hazard Dam that is located on Pleasant Valley Lake. The dam is owned by the Pleasant Valley Country Club. Failure of the dam could result in inundation of densely populated areas, woodland areas, recreational areas, and local roadways including Woodland Drive, West Shore Drive, and North Shore Drive. The dam was last inspected in 2023 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 24.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 24.7.1 Past Mitigation Action Status

Table 24-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 24.7.2 Additional Mitigation Efforts

Vernon did not identify any additional mitigation efforts completed since the last HMP.



Table 24-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Vernon-001	PPE Acquisition/Pandemic Response	Disease Outbreak	Township OEM	<p><b>Problem:</b> During the current COVID-19 pandemic, the Township did not have an adequate supply of personal protective equipment (PPE) for municipal staff. Without proper PPE, it puts municipal staff and residents at risk to the spread of infectious diseases.</p> <p><b>Solution:</b> The Township will purchase PPE to create a stockpile for municipal staff. This will include gloves, masks, gowns, antibacterial handwash, antiviral cleaning solutions, sanitizers, and misters. This equipment can be used for the COVID-19 pandemic response as well as future infectious disease outbreaks, such as pandemic influenza.</p>	<p>1. Completed</p> <p>2. Stockpile has been completed, located in the Police pole barn. Township performs assessments to the PPE to identify expiration dates and replace PPE as necessary. Funds were used from FEMA PA and the Township budget.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Stockpile has been completed, located in the Police pole barn. Township performs assessments to the PPE to identify expiration dates and replace PPE as necessary. Funds were used from FEMA PA and the Township budget.</p>
2021-Vernon-002	Vegetation Management Planning and Implementation	Hurricane and Tropical Storm, Nor'easter, Severe Storm, Severe Winter Storm, Wildfire	Sussex County; Vernon Township DPW	<p><b>Problem:</b> Vernon experiences frequent storm damage from downed trees. The Township's roads are surrounded by vegetation over-growth throughout the Township's 68 square miles. County Route 515, one of the Township's busiest roads, is particularly impacted by downed trees. The Township has identified that 14 miles of vegetation</p>	<p>1. No Progress</p> <p>2. Due to financial constraints, no progress has been made on this action.</p>	<p>1. Include</p> <p>2. Update to include the following: 4 Access Roads (CR 515, Canistear Rd, CR 565, SR 94) are heavily timber lined. Severe weather causes fallen trees across the roadways, interrupting the heavily trafficked roads. Have solution include NJDOT and utility companies as supporting agencies and funding streams.</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<p>management is needed to reduce impacts from trees to utility and vehicle rights-of-way. During storm events, delays of up to six hours are reported due to trees in the road.</p> <p><b>Solution:</b> The Township proposes to develop a proactive vegetation management plan and contract with a vegetation management company to prioritize vegetation removal, implement best practices, and cutback overgrown and dead vegetation to reduce impacts of downed trees. Funding will be sought to hire a contractor to remove high hazard trees that are beyond the Township's capabilities.</p>		3. Not applicable
2021-Vernon-003	Firewise Program Participation	Wildfire	Township OEM and Fire Department	<p><b>Problem:</b> The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township is currently not part of the Firewise program.</p> <p><b>Solution:</b> The Township will follow the proper steps in applying</p>	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The application will be completed online.		
2021-Vernon-004	Update Flood Damage Prevention Ordinance	Flood	Township Administration, Construction Official	<b>Problem:</b> The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meet New Jersey's minimum requirement.  <b>Solution:</b> The Township will update its flood damage prevention ordinance to meet the New Jersey requirement of one foot of freeboard.	1. In Progress 2. The Township is currently working to update the Flood Damage Prevention Ordinance to be in-line with both State and Federal requirements, including New Jersey Department of Environmental Protection's Code Coordinated Ordinance. The ordinance will be sent for review by July 25, 2024.	1. Include 2. The Township is currently working to update the Flood Damage Prevention Ordinance to be in-line with both State and Federal requirements, including New Jersey Department of Environmental Protection's Code Coordinated Ordinance. The ordinance will be sent for review by July 25, 2024. 3. Not applicable
2021-Vernon-005	National Winter Activity Center Dam Replacement	Dam Failure, Geologic	National Winter Activity Center	<b>Problem:</b> A relatively small sinkhole formed as a result of heavy rain, snow melt, and lake run off at National Winter Activity Center. It was approximately 30" x 24" a 6' deep that connected to a dam spill way basin that ties into a stream. The dam requires replacement.	1. Completed 2. This sinkhole formed just days before the dam was scheduled to be fully replaced. The National Winter Activity Center funded the replacement of the dam.	1. Discontinue 2. Not applicable 3. This sinkhole formed just days before the dam was scheduled to be fully replaced. The National Winter Activity Center funded the replacement of the dam.



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<b>Solution:</b> The National Winter Activity Center will carry out replacement of the dam.		





### 24.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Vernon participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Vernon would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 24-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 24-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 24-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X		X		X	X
Disease Outbreak	X			X			X			X
Drought				X			X			
Earthquake	X			X	X		X			X
Flood	X	X		X	X	X	X		X	X
Geological Hazards	X			X	X		X			X
Hazardous Materials	X			X	X		X			X
Hurricane	X		X	X	X		X	X		X
Infestation				X			X			
Nor'easter	X		X	X	X		X	X		X
Severe Weather	X		X	X	X		X	X		X
Severe Winter Weather	X		X	X	X		X	X		X
Wildfire	X			X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 24-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-VernonTwp-01	Dam Repair	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-VernonTwp-02	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-VernonTwp-03	Tree Maintenance	0	1	1	1	1	1	1	1	1	1	0	1	0	0	10	Medium
2025-VernonTwp-04	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-VernonTwp-05	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-VernonTwp-06	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-VernonTwp-07	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-VernonTwp-08	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-VernonTwp-09	Critical Facilities in the Floodplain	1	1	1	1	1	0	1	1	1	0	1	1	1	0	11	High
2025-VernonTwp-10	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-VernonTwp-11	Firewise Program Participation	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-VernonTwp-12	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-VernonTwp-13	Flooded Roadways Study	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-VernonTwp-14	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-VernonTwp-15	Emergency Generators at Critical Facilities	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-VernonTwp-16	Vernon Crossing Road Flood Mitigation	1	1	1	1	1	0	1	1	1	0	1	1	0	0	10	Medium
2025-VernonTwp-17	Lake Panorama Dike Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High



Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-VernonTwp-18	Great Gorge Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-VernonTwp-19	East Cove Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-VernonTwp-20	Wawayanda Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-VernonTwp-21	Mountain Creek Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-VernonTwp-22	Upper West Highland Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-VernonTwp-23	Highland Lakes Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-VernonTwp-24	Upper Highland Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-VernonTwp-25	Hidden Valley Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-VernonTwp-26	Canistear Reservoir #2 Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-VernonTwp-27	Stump Pond Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High
2025-VernonTwp-28	Pleasant Valley Lake Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



## Action 2025-VernonTwp-01. Dam Repair

<b>Lead Agency:</b>	Engineer
<b>Supporting Agencies:</b>	Dam Manager, NJDEP Bureau of Dam Safety, County Engineer
<b>Hazard(s) of Concern:</b>	<div><div><input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials</div><div><input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire</div></div>
<b>Description of the Problem:</b>	<p>The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:</p> <ul style="list-style-type: none"><li>• Mountain Creek Lake Dam (poor)</li><li>• Stump Pond Dam (poor)</li><li>• Laurel Lake Dam (poor)</li><li>• Lake Conway Dam (poor)</li><li>• West Highland Lakes Dam (poor)</li><li>• Upper Scenic Lake Dam (poor)</li><li>• Lake Panorama Dike (poor)</li><li>• Diversion Dam (poor)</li><li>• Billhill Dam (poor)</li><li>• Lake Wanda Dam (poor)</li><li>• Pleasant Valley Lake Dam (poor)</li><li>• Lake Panorama Dam (poor)</li><li>• Scenic Lake Dam (poor)</li></ul> <p>Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.</p>
<b>Description of the Solution:</b>	<p>The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.</p>
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget
<b>Implementation Timeline:</b>	Within 5 years
<b>Goals Met:</b>	1, 2, 3
<b>Benefits:</b>	<p>Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.</p>
<b>Impact on Socially Vulnerable Populations:</b>	<p>The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.</p>
<b>Impact on Future Development:</b>	<p>Future development downstream of dams will also be protected from dam failure.</p>
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.</p>
<b>Impact on Capabilities:</b>	Not applicable
<b>Climate Change Considerations:</b>	<p>Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.</p>



Mitigation Category	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Risk of dam failure remains or increases over time
	Work without County Engineer involvement		Improvements made but may lack appropriate support from County, including data and potential funding access
	Remove all dams		Without proper analysis, dam removal may increase flooding risk





## Action 2025-VernonTwp-02. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management										
<b>Supporting Agencies:</b>	Public Works, Township Administration										
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure         <input type="checkbox"/> Disease Outbreak         <input type="checkbox"/> Drought         <input checked="" type="checkbox"/> Earthquake         <input checked="" type="checkbox"/> Flood         <input checked="" type="checkbox"/> Geological Hazards         <input checked="" type="checkbox"/> Hazardous Materials       </div> <div> <input checked="" type="checkbox"/> Hurricane         <input type="checkbox"/> Infestation         <input checked="" type="checkbox"/> Nor'easter         <input checked="" type="checkbox"/> Severe Weather         <input checked="" type="checkbox"/> Severe Winter Weather         <input checked="" type="checkbox"/> Wildfire       </div>										
<b>Description of the Problem:</b>	The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.										
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.										
<b>Estimated Cost:</b>	Staff time										
<b>Potential Funding Sources:</b>	Municipal budget										
<b>Implementation Timeline:</b>	Within 5 years										
<b>Goals Met:</b>	5										
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.										
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable										
<b>Impact on Future Development:</b>	Not Applicable										
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable										
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.										
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.										
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Education and Awareness Programs (EAP)										
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Public Information (PI) <input checked="" type="checkbox"/> Emergency Services (ES)										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th> <th>Evaluation</th> </tr> </thead> <tbody> <tr> <td>No Action</td> <td>Current problem remains</td> </tr> <tr> <td>Rely on federal cleanup</td> <td>These services may or may not be available</td> </tr> <tr> <td>Rely on state cleanup</td> <td>These services may or may not be available</td> </tr> </tbody> </table>			Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available
Action	Evaluation										
No Action	Current problem remains										
Rely on federal cleanup	These services may or may not be available										
Rely on state cleanup	These services may or may not be available										



## Action 2025-VernonTwp-03. Tree Maintenance

<b>Lead Agency:</b>	Public Works																
<b>Supporting Agencies:</b>	Parks and Recreation, Utility Companies, Property Owners, NJDOT																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Vernon experiences frequent storm damage from downed trees. The Township's roads are surrounded by vegetation over-growth throughout the Township's 68 square miles. There are four roads in particular (CR-515, CR-565, SR-94, and Canistear Road) which are particularly impacted by downed trees. The Township has identified that 14 miles of vegetation management is needed to reduce impacts from trees to utility and vehicle rights-of-way. During storm events, delays of up to six hours are reported due to trees in the road.																
<b>Description of the Solution:</b>	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption in conjunction with property owners, utility companies, and NJDOT.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal Budget, NJDOT, Property Owners, Utility Companies																
<b>Implementation Timeline:</b>	4 years																
<b>Goals Met:</b>	1, 2, 5, 7																
<b>Benefits:</b>	This action will result in the reduction of risk surrounding power outages by minimizing potential impacts from trees on utility lines.																
<b>Impact on Socially Vulnerable Populations:</b>	Some socially vulnerable population rely on power utilities for everyday care. If power outages are caused by a lack of tree maintenance, lives could potentially be at risk.																
<b>Impact on Future Development:</b>	This action assists in the protection of future development from impacts caused by tree collapses or branch falls as a result of severe weather, severe winter weather, hurricanes, and nor'easters.																
<b>Impact on Critical Facilities/Lifelines:</b>	Utility lines provide power to residencies, private businesses, government entities, and various providers. Not maintaining trees, tree limbs, or tree branches may impact the availability of power during severe weather and severe winter weather events.																
<b>Impact on Capabilities:</b>	The creation of a tree maintenance program would be a new capability for the Township.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to trees or tree limbs/branches falling or impacting utility lines and property.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input checked="" type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input checked="" type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input checked="" type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input checked="" type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Municipal-owned trees will be maintained</td></tr><tr><td>Do not contact utility companies</td><td>Trees along utility lines may impact power during severe weather and severe winter weather events</td></tr><tr><td>Do not contact property owners</td><td>Trees on private residencies may impact power during severe weather and severe winter weather events</td></tr></table>	Action	Evaluation	No Action	Municipal-owned trees will be maintained	Do not contact utility companies	Trees along utility lines may impact power during severe weather and severe winter weather events	Do not contact property owners	Trees on private residencies may impact power during severe weather and severe winter weather events								
Action	Evaluation																
No Action	Municipal-owned trees will be maintained																
Do not contact utility companies	Trees along utility lines may impact power during severe weather and severe winter weather events																
Do not contact property owners	Trees on private residencies may impact power during severe weather and severe winter weather events																



## Action 2025-VernonTwp-04. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. The Township has struggled with identifying where socially vulnerable populations are located at within the jurisdiction. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.		
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Township events, the Township newsletters, social media, the Township website, and having the materials on display for the public at Township libraries and offices. Consider hiring staff to work directly with socially vulnerable populations. Work with Sussex County to identify and create a list of socially vulnerable populations utilizing Register Ready.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget, HMGP		
<b>Implementation Timeline:</b>	Within 3 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Township. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township will become educated on hazards risks. The Township will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program. It would also assist the Township in identifying where socially vulnerable populations are located in the jurisdiction.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	



	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance
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## Action 2025-VernonTwp-05. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods. The Township does not currently have hazard mitigation information and outreach on the Township website.		
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	2 years		
<b>Goals Met:</b>	1, 2, 3, 7		
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Township by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Township.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Township.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current methods remain the only ones used	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance	



## Action 2025-VernonTwp-06. Repetitive Loss Properties

<b>Lead Agency:</b>	Floodplain Administrator										
<b>Supporting Agencies:</b>	Sussex County										
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>										
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has one repetitive loss property, but other properties may be impacted by flooding as well. Scattered privately-owned homesites are located along the Delaware River. Some of these properties are located in the Special Flood Hazard Area, with development requiring floodproofing.										
<b>Description of the Solution:</b>	The Township will promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.										
<b>Estimated Cost:</b>	Medium										
<b>Potential Funding Sources:</b>	FEMA FMA, FMA SWIFT, Municipal Budget, County Budget, Property Owners										
<b>Implementation Timeline:</b>	3 years										
<b>Goals Met:</b>	2, 3										
<b>Benefits:</b>	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.										
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.										
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.										
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.										
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.										
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>										
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR)</div> <div><input checked="" type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem continues</td></tr><tr><td>Construct flood walls/barriers around vulnerable areas</td><td>Costly and can divert floodwaters to other areas</td></tr><tr><td>Deployable flood barriers for vulnerable areas</td><td>Requires a great deal of work to implement prior to each event</td></tr></table>	Action	Evaluation	No action	Current problem continues	Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas	Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event		
Action	Evaluation										
No action	Current problem continues										
Construct flood walls/barriers around vulnerable areas	Costly and can divert floodwaters to other areas										
Deployable flood barriers for vulnerable areas	Requires a great deal of work to implement prior to each event										





## Action 2025-VernonTwp-07. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Planning Board, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.																
<b>Description of the Solution:</b>	The Floodplain Administrator will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.																
<b>Estimated Cost:</b>	Staff time, Low																
<b>Potential Funding Sources:</b>	Township Budget																
<b>Implementation Timeline:</b>	Within 2 years																
<b>Goals Met:</b>	1, 2, 5																
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.																
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.																
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.																
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.																
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.																
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current problem remains</td></tr><tr><td>Only share opportunities when notified of grant funding</td><td>May not be enough time to garner interest or write application</td></tr><tr><td>Wait for information from the State on flood-damaged properties</td><td>May be a delay in notice</td></tr></table>	Action	Evaluation	No action	Current problem remains	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	Wait for information from the State on flood-damaged properties	May be a delay in notice								
Action	Evaluation																
No action	Current problem remains																
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application																
Wait for information from the State on flood-damaged properties	May be a delay in notice																



## Action 2025-VernonTwp-08. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Engineering, Building Department, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-VernonTwp-09. Critical Facilities in the Floodplain

<b>Lead Agency:</b>	Facility Managers		
<b>Supporting Agencies:</b>	Emergency Management, Floodplain Administrator		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Township has several critical facilities in the floodplain including Canistear Reservoir #2 Dam, Dorothy Henry Library Branch, East Cove Dam, Hickory Park Dam, Highland Lakes Dam, Kohout Lake Dam, and Lake Wanda Dam.		
<b>Description of the Solution:</b>	Coordinate with the facility managers at the Canistear Reservoir #2 Dam, Dorothy Henry Library Branch, East Cove Dam, Hickory Park Dam, Highland Lakes Dam, Kohout Lake Dam, and Lake Wanda Dam in the Township to support the mitigation of vulnerable structures via retrofit (e.g., elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP, Township Budget, Facilities		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action will remove or reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders.		
<b>Impact on Socially Vulnerable Populations:</b>	Retrofitting or relocating the identified structures will benefit socially vulnerable populations, as individuals within these populations rely on resources from various government facilities, transportation facilities, and medical and senior care facilities.		
<b>Impact on Future Development:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Critical Facilities/Lifelines:</b>	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>		
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR)</div> <div><input checked="" type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Floodproof existing structures	May not necessarily reduce risk	
	Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function	



## Action 2025-VernonTwp-10. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM																
<b>Supporting Agencies:</b>	NJDEP, Dam Owners																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Canistear Reservoir #2 Dam, East Cove Dam, Hickory Park Dam, Highland Lakes Dam, Kohout Lake Dam, and Lake Wanda Dam, all critical infrastructures, are located in the 1- and 0.2-percent flood hazard areas. The Township also has several high-hazard potential dams, including the Lake Panorama Dike, Great Gorge Dam, East Cove Dam, Wawayanda Lake Dam, Mountain Creek Lake Dam, Upper West Highland Lake Dam, Highland Lakes Dam, Upper Highland Lake Dam, Hidden Valley Lake Dam, Canistear Reservoir #2 Dam, Stump Pond Dam, and Pleasant Valley Lake Dam, within its jurisdiction. These structures have the potential to impact those living nearby.																
<b>Description of the Solution:</b>	The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM. The Township will conduct public outreach to the high hazard dam owners and provide examples of mitigation actions to protect these structures from dam failure.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5, 7																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<table><tr><td><input checked="" type="checkbox"/> High</td><td><input type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Township will be unaware of any safety concerns for the dam or its condition</td></tr><tr><td>Utilize information from NJDEP</td><td>Owners may not be required to submit a safety plan to the State</td></tr><tr><td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr></table>			Action	Evaluation	No Action	Township will be unaware of any safety concerns for the dam or its condition	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory						
Action	Evaluation																
No Action	Township will be unaware of any safety concerns for the dam or its condition																
Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State																
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory																



## Action 2025-VernonTwp-11. Firewise Program Participation

<b>Lead Agency:</b>	Fire Department								
<b>Supporting Agencies:</b>	Township Administration								
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire								
<b>Description of the Problem:</b>	The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township is currently not part of the Firewise program.								
<b>Description of the Solution:</b>	The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up town hall meetings.								
<b>Estimated Cost:</b>	Low								
<b>Potential Funding Sources:</b>	Municipal Budget								
<b>Implementation Timeline:</b>	3 years								
<b>Goals Met:</b>	1, 2, 3, 4, 5								
<b>Benefits:</b>	The national Firewise USA recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level.								
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township may be located within very high and high fuel risk areas for wildfires. Participation in the Firewise Program will assist in the Township's efforts to educate populations on how to increase the ignition resistance of their home and property.								
<b>Impact on Future Development:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made. This assessment may identify areas which the Township would like to restrict future development.								
<b>Impact on Critical Facilities/Lifelines:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made, which could include relocating various critical facilities or lifelines.								
<b>Impact on Capabilities:</b>	This action will increase wildfire risk reduction and response capabilities for the Township.								
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.								
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)								
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)								
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low						
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th><th>Evaluation</th></tr> </thead> <tbody> <tr> <td>No Action</td><td>The Township does not participate in the Firewise Program</td></tr> <tr> <td>Complete half of the program requirements</td><td>The Township would not be eligible to participate in the Firewise Program</td></tr> </tbody> </table>			Action	Evaluation	No Action	The Township does not participate in the Firewise Program	Complete half of the program requirements	The Township would not be eligible to participate in the Firewise Program
Action	Evaluation								
No Action	The Township does not participate in the Firewise Program								
Complete half of the program requirements	The Township would not be eligible to participate in the Firewise Program								



	Participate in the program, but do not utilize resources	The Township would miss opportunities to strengthen communication and safety skills
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## Action 2025-VernonTwp-12. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Construction Official, Building Department, Township Administration, NFIP State Coordinator, FEMA Regional Office		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	<p>The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meet New Jersey's minimum requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance. The Township's ordinance requires update.</p>		
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.</p>		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5,7		
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>		
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>		
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>		
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>		
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>		
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem exists



	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage



## Action 2025-VernonTwp-13. Flooded Roadways Study

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Township Administration, Emergency Management, Dam Owner		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Heavy rains flood Wawayanda Road and Warwick Turnpike. A small stream connecting Kohout Lake and Parker Lake flows under Wawayanda Road; it is unknown if the Kohout Lake Dam, which is located along the Warwick Turnpike at Kohout Lake, contributes to the roadways flooding. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	Work with partnering agencies to identify feasible mitigation measures to provide relief from flooding impacts on Wawayanda Road and Warwick Turnpike. Conduct a study to identify whether the Kohout Lake Dam is contributing to the flooding along the roadways. Cost effective measures will be implemented.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Township along Wawayanda Road and Warwick Turnpike.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding along Wawayanda Road and Warwick Turnpike. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding along Wawayanda Road and Warwick Turnpike, permitting first responders to traverse the roadways safely.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rain events make traversing roadways difficult, and often times unsafe.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Raise banks of stream to increase storage capacity	Cost prohibitive	
	Construct floodwall along stream	Cost prohibitive	



## Action 2025-VernonTwp-14. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Emergency Management, Building Department		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP) </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP) </div> </div>		
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI) </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES) </div> </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-VernonTwp-15. Emergency Generators at Critical Facilities

<b>Lead Agency:</b>	Engineering																
<b>Supporting Agencies:</b>	Fire Stations, Emergency Management, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input checked="" type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input checked="" type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input checked="" type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input checked="" type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input checked="" type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Fire Stations in the Township are in need of emergency back-up generators; the stations are not only a critical facility and community lifeline themselves but are also used as warming and cooling centers. The MacAfee Station (88 State RT 94, McAfee, NJ 07428) does not have an emergency back-up generator; the Highland Lakes Station's (813 Canistear Road, Highland Lakes, NJ 07422) current generator is undersized and does not have the capacity to power the building should an emergency occur and impact power usage. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.																
<b>Description of the Solution:</b>	The Township's Engineer will assess the needs of the buildings to determine the capacity required for the generator. Following this determination, the generator and all necessary components and accessories will be installed at both the MacAfee Station (88 State RT 94, McAfee, NJ 07428) and Highland Lakes Station's (813 Canistear Road, Highland Lakes, NJ 07422). The employees at either fire station will perform the needed maintenance for these generators.																
<b>Estimated Cost:</b>	Medium																
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 5, 6, 7																
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.																
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.																
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<table><tr><td><input type="checkbox"/> High</td><td><input checked="" type="checkbox"/> Medium</td><td><input type="checkbox"/> Low</td></tr></table>			<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low											
<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low															
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Microgrid</td><td>Costly and difficult to implement.</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Microgrid	Costly and difficult to implement.										
Action	Evaluation																
No Action	Current problem remains																
Microgrid	Costly and difficult to implement.																





	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.
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## Action 2025-VernonTwp-16. Vernon Crossing Road Flood Mitigation

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Township Administration, Emergency Management, Public Works		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Vernon Crossing Road is a low-lying area in the Township prone to flooding. The Black Creek, a tributary of Vernon Valley Lake, flows alongside and underneath the roadway. Flooded roadways create treacherous conditions for drivers and emergency responders. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	Work with partnering agencies to identify feasible mitigation measures to provide relief from flooding impacts on Vernon Crossing Road. Cost effective measures will be implemented.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HMGP		
<b>Implementation Timeline:</b>	5 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Township on Vernon Crossing Road.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding on Vernon Crossing Road. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding on Vernon Crossing Road, permitting first responders to traverse the roadways safely.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Heavy rain events make traversing roadways difficult, and often times unsafe.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Raise banks of stream to increase storage capacity	Cost prohibitive	
	Construct floodwall along stream	Cost prohibitive	



## Action 2025-VernonTwp-17. Lake Panorama Dike Rehab

<b>Lead Agency:</b>	Lake Panorama Community Association																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Lake Panorama Dike is a Class I High Hazard Dam that is located on Panorama Lake. The dam is owned by the Lake Panorama Community Association. Failure of the dam could result in inundation of populated areas, forested areas, recreation areas, and local roadways including Panorama Drive, Upper Notch Road, and Lakeview Drive Northwest. The dam was last inspected in 2023 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Lake Panorama Community Association to complete an engineering study of Lake Panorama Dike. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Lake Panorama Community Association will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Panorama Lake as an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Panorama Lake as an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Panorama Lake as an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-VernonTwp-18. Great Gorge Dam Rehab

<b>Lead Agency:</b>	Mountain Creek Resort		
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Great Gorge Dam is a Class I High Hazard Dam that is located on a tributary of the Black River. The dam is owned by the Mountain Creek Resort. Failure of the dam could result in inundation of forested and recreational areas. Although the dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.		
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Mountain Creek Resort to complete an engineering study of Great Gorge Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Mountain Creek Resort will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.		
<b>Estimated Cost:</b>	High		
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 8		
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.		
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.		
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.		
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.		
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem continues	
	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of a water supply resource.	



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-VernonTwp-19. East Cove Dam Rehab

<b>Lead Agency:</b>	New Jersey Division of Parks and Forestry																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	East Cove Dam is a Class I High Hazard Dam that is located on Wawayanda Lake. The dam is owned by the New Jersey Division of Parks and Forestry. Failure of the dam could result in inundation of forested areas, recreational areas, and local roadways including Campsite Road. East Cove Dam is located upstream from the Double Kill Stream, which feeds into Laurel Pond. Laurel Pond is closely located to the Wawayanda Lake Dam, therefore should a failure occur at the East Cove Dam, it is possible the Wawayanda Lake Dam may be impacted by the influx of flood waters, and which could lead to a secondary dam failure. Although the East Cove Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the New Jersey Division of Parks and Forestry to complete an engineering study of East Cove Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the New Jersey Division of Parks and Forestry will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr></table>	Action	Evaluation	No Action	Current problem continues												
Action	Evaluation																
No Action	Current problem continues																



	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Wawayanda Lake as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## Action 2025-VernonTwp-20. Wawayanda Lake Dam Rehab

<b>Lead Agency:</b>	New Jersey Division of Parks and Forestry																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	<p>Wawayanda Lake Dam is a Class I High Hazard Dam that is located on Wawayanda Lake. The dam is owned by the New Jersey Division of Parks and Forestry. Failure of the dam could result in inundation of forested and recreational areas. The Wawayanda Dam is located closely to Laurel Pond, which receives waters from the Double Kill Stream. This stream is closely located near the East Cove Dam. Should a dam failure occur at the East Cove Dam, it is possible the Wawayanda Lake Dam may be impacted by the influx of flood waters, from these waterways, which could lead to a secondary dam failure. Although the Wawayanda Lake Dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.</p>																
<b>Description of the Solution:</b>	<p>The Municipal Engineer will work with the New Jersey Division of Parks and Forestry to complete an engineering study of Wawayanda Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the New Jersey Division of Parks and Forestry will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.</p>																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	<p>This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.</p>																
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.</p>																
<b>Impact on Future Development:</b>	<p>Future development located in or near the dam inundation area will be further protected from a dam failure event.</p>																
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.</p>																
<b>Impact on Capabilities:</b>	<p>This action will improve planning and response capabilities through the understanding of responsibilities and procedures.</p>																
<b>Climate Change Considerations:</b>	<p>Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.</p>																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr></table>	Action	Evaluation	No Action	Current problem continues												
Action	Evaluation																
No Action	Current problem continues																



	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Wawayanda Lake as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## Action 2025-VernonTwp-21. Mountain Creek Dam Rehab

<b>Lead Agency:</b>	Mountain Creek Resort																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Mountain Creek Lake Dam is a Class I High Hazard Dam that is located on a tributary of the Black River. The dam is owned by the Mountain Creek Resort. Failure of the dam could result in inundation of forested and recreational areas. The dam was last inspected in 2022 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Mountain Creek Resort to complete an engineering study of Mountain Creek Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Mountain Creek Resort will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-VernonTwp-22. Upper West Highland Dam Rehab

<b>Lead Agency:</b>	Highland Lakes Country Club and Community Association																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
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<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Upper West Highland Lake Dam is a Class I High Hazard Dam that is located on Upper West Highland Lake. The dam is owned by the Highland Lakes Country Club and Community Association. Failure of the dam could result in inundation of densely populated areas, recreational areas, critical facilities and community lifelines, and local roadways including Upper Highlands Lake Drive, Waconia Road, Pocasset Road, and Breakneck Road. The Upper West Highland Lake Dam is closely located to the Upper Highland Lake Dam and Highland Lake Dam. Should a failure occur at any of these dams, cascading impacts from the flood waters may result in subsequent dam failures. Although the Upper West Highland Lake Dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Highland Lakes Country Club and Community Association to complete an engineering study of Upper West Highland Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Highland Lakes Country Club and Community Association will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>															



	No Action	Current problem continues
	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Upper West Highland Lake as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## Action 2025-VernonTwp-23. Highland Lakes Dam Rehab

<b>Lead Agency:</b>	Highland Lakes Country Club and Community Association																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	<p>Highland Lakes Dam is a Class I High Hazard Dam that is located on Highland Lake. The dam is owned by the Highland Lakes Country Club and Community Association. Failure of the dam could result in inundation of densely populated areas, recreational areas, critical facilities and community lifelines, and local roadways including Lakeside Drive East, Lakeside Drive, and Birch Road. The Highland Lakes Dam is closely located to the Upper West Highland Lake Dam and Upper Highland Lake Dam. Should a failure occur at any of these dams, cascading impacts from the flood waters may result in subsequent dam failures. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.</p>																
<b>Description of the Solution:</b>	<p>The Municipal Engineer will work with the Highland Lakes Country Club and Community Association to complete an engineering study of Highland Lakes Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Highland Lakes Country Club and Community Association will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.</p>																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	<p>This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.</p>																
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.</p>																
<b>Impact on Future Development:</b>	<p>Future development located in or near the dam inundation area will be further protected from a dam failure event.</p>																
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.</p>																
<b>Impact on Capabilities:</b>	<p>This action will improve planning and response capabilities through the understanding of responsibilities and procedures.</p>																
<b>Climate Change Considerations:</b>	<p>Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.</p>																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr></table>	Action	Evaluation	No Action	Current problem continues												
Action	Evaluation																
No Action	Current problem continues																



	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Highland Lake as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions



## Action 2025-VernonTwp-24. Upper Highland Dam Rehab

<b>Lead Agency:</b>	Highland Lakes Country Club and Community Association																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
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<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Upper Highland Lake Dam is a Class I High Hazard Dam that is located on Upper Highland Lake. The dam is owned by the Highland Lakes Country Club and Community Association. Failure of the dam could result in inundation of recreational areas, critical facilities and community lifelines, and local roadways including Lakeside Drive, Casco Road, and Breakneck Road. The Upper Highland Lake Dam is closely located to the Upper West Highland Lake Dam and Highland Lake Dam. Should a failure occur at any of these dams, cascading impacts from the flood waters may result in subsequent dam failures. Although the dam was last inspected in 2022 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Highland Lakes Country Club and Community Association to complete an engineering study of Upper Highland Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Highland Lakes Country Club and Community Association will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr></table>	Action	Evaluation	No Action	Current problem continues												
Action	Evaluation																
No Action	Current problem continues																



	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Upper Highland Lake as an environmental and recreational resource.
	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions





## Action 2025-VernonTwp-25. Hidden Valley Lake Dam Rehab

<b>Lead Agency:</b>	National Winter Activity Center																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Hidden Valley Lake Dam is a Class I High Hazard Dam that is located on a tributary of the Pachuck Creek. The dam is owned by the National Winter Activity Center. Failure of the dam could result in inundation of populated areas, woodland areas, recreational areas, and local roadways including Curtis Drive, Meadow Lane, and Village Way. Although the dam was last inspected in 2024 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the National Winter Activity Center to complete an engineering study of Hidden Valley Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the National Winter Activity Center will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input checked="" type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of an environmental and recreational resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of an environmental and recreational resource.										
Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-VernonTwp-26. Canistear Reservoir #2 Dam Rehab

<b>Lead Agency:</b>	City of Newark Department of Water and Sewer Utilities																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Canistear Reservoir #2 Dam is a Class I High Hazard Dam that is located on the Canistear Reservoir, leading into the Pacock Brook. The dam is owned by the City of Newark Department of Water and Sewer Utilities. Failure of the dam could result in inundation of forested and woodland areas, and potentially local roadways including Upper Dam Road and Lower Dam Road. Although the dam was last inspected in 2023 and found to be in fair condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the City of Newark Department of Water and Sewer Utilities to complete an engineering study of Canistear Reservoir #2 Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the City of Newark Department of Water and Sewer Utilities will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
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Action	Evaluation																
No Action	Current problem continues																
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Canistear Reservoir #2 Dam as a water supply resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-VernonTwp-27. Stump Pond Dam Rehab

<b>Lead Agency:</b>	Pleasant Valley Country Club																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter																
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather																
<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Stump Pond Dam is a Class I High Hazard Dam that is located on Pleasant Valley Lake. The dam is owned by the Pleasant Valley Country Club. Failure of the dam could result in inundation of densely populated areas, woodland areas, recreational areas, and local roadways including Woodland Drive, West Shore Drive, and North Shore Drive. The dam was last inspected in 2023 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Pleasant Valley Country Club to complete an engineering study of Stump Pond Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Pleasant Valley Country Club will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
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Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Pleasant Valley Lake as an environmental and recreational resource.																



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## Action 2025-VernonTwp-28. Pleasant Valley Lake Dam Rehab

<b>Lead Agency:</b>	Pleasant Valley Country Club																
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
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<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	Pleasant Valley Lake Dam is a Class I High Hazard Dam that is located on Pleasant Valley Lake. The dam is owned by the Pleasant Valley Country Club. Failure of the dam could result in inundation of densely populated areas, woodland areas, recreational areas, and local roadways including Woodland Drive, West Shore Drive, and North Shore Drive. The dam was last inspected in 2023 and found to be in poor condition, meaning the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.																
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Pleasant Valley Country Club to complete an engineering study of Pleasant Valley Lake Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Pleasant Valley Country Club will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.																
<b>Estimated Cost:</b>	High																
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 8																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.																
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	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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## 25. TOWNSHIP OF WALPACK

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Walpack with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Walpack, describes who participated in the planning process, assesses Walpack's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 25.1 HAZARD MITIGATION PLANNING TEAM

The Township of Walpack identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Mayor represented the community on the Sussex County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 25-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 25-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Victor Maglio, Mayor Address: 9 Main Street, Walpack Center, NJ 07881 Phone Number: (973) 479-6976 Email: walpackmayor@gmail.com	Name/Title: Christine Von Oesen, Municipal Clerk Address: 9 Main Street, Walpack Center, NJ 07881 Phone Number: (973) 479-6976 Email: walpackclerk@live.com
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Michael Vreeland, Township Engineer Address: 111 Howard Blvd Ste 101, Mt Arlington, NJ 07856 Phone Number: (862) 284-1100 Email: mvreeland@vancleefengineering.com	
<b>Additional Contributors</b>	
Name/Title: Greg Chontow, Construction Official Method of Participation: Assisted in the completion of municipal worksheets. Reviewed and approved final draft of annex.	
Name/Title: Victor Maglio, Mayor Method of Participation: Reviewed and approved final draft of annex.	
Name/Title: Christine Von Oesen, Municipal Clerk Method of Participation: Reviewed and approved final draft of annex.	
Name/Title: Michael Vreeland, Township Engineer Method of Participation: Assisted in the completion of municipal worksheets. Reviewed and approved final draft of annex.	



## 25.2 COMMUNITY PROFILE

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The Township of Walpack is located in western Sussex County and has a total area of 24.7 square miles. It is the oldest municipality in Sussex County. The following unincorporated communities are located within the Township: Walpack Center, Haneys Mill, Smith Ferry, Flatbrookville, and Donkeys Corners. The Township is bordered to the north by Sandyston Township, to the east by Stillwater and Hampton Townships, to the south by Warren County, and to the west by Pennsylvania. The Delaware River forms the western border of the Township. Other streams flow through the Township and include Flat Brook and its tributaries and Vancampens Brook and its tributaries. There are also several lakes and ponds that include Crater Lake, Lake Success, Long Pine Pond, and Hemlock Lake.

A majority of the land in the Township is under the jurisdiction of the National Park Service. The National Park Service also has jurisdiction over the Township's roadways. According to the U.S. Census, the 2020 population for Walpack was 7, a 56-percent decrease from the 2010 Census.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 0-percent of the population is 5 years of age or younger, 0-percent is 65 years of age or older, 0-percent is non-English speaking, 0-percent is below the poverty threshold, and 0-percent is considered disabled.

Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 25.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Walpack performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Walpack to identify opportunities for integrating mitigation concepts into ongoing Township procedures.



### 25.3.1 Planning and Regulatory Capability and Integration

Table 25-2 summarizes the planning and regulatory tools that are available to Walpack. All ordinance and code information in Walpack are stored as physical documents; these documents are not available online. For this reason, and due to ongoing construction work where these documents are stored, many code and ordinance numbers, names, and responsible individuals were not able to be identified.

Table 25-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)	State & Local	Construction Official
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p>The State Uniform Construction Code, building subcode, is hereby adopted and incorporated as fully as if set forth at length herein. The provisions shall be controlling in the construction, alteration, renovation, rehabilitation, maintenance, occupancy, and use of all buildings and structures therein contained within the corporate limits of the Township. The Construction Official is the chief administrator of the enforcing agency.</p>				
<b>Zoning/Land Use Code</b>	Yes	-	State & Local	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p>The code enables where appropriate, flexibility of design and development of land in such a manner as to preserve its natural and scenic qualities, protect areas of meaningful ecological value, reduce flood hazards, facilitate the adequate and economical provision of streets and utilities, minimize negative environmental impacts, improve the aesthetic quality of new residential developments, encourage the conservation of energy, increase recreational opportunities, and otherwise promote the planned and environmentally desirable use of land.</p>				
<b>Subdivision Code</b>	Yes	-	County & Local	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p>Land to be subdivided shall be of such character that it can be used safely for building or development purposes without danger to health or peril from fire, flood, or other menace, and without resulting in significant damage to the ecology of the area in which it is located. Land subject to fire, flood or other hazards shall not be subdivided nor developed for residential purposes, nor for such other uses as may increase danger to health, life, or property, or aggravate a flood hazard, but such land may be set aside for uses as shall not involve such danger nor produce unsatisfactory living conditions.</p>				
<b>Site Plan Code</b>	Yes	-	County & Local	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p>Approval of a site plan is required for a) the development or redevelopment of any building, structure or lot or portion thereof for a new use; b) the expansion or relocation of any existing use; or c) any change of use of a building, structure or lot or portion thereof. The Planning Board sets forth appropriate conditions and safeguards which are in harmony with several identified purposes, including drainage. Per the ordinance, a proposed stormwater drainage system shall be adequate to prevent any increase in the rate of surface runoff or otherwise contribute to downstream flooding during a storm of any magnitude, up to and including a one-hundred-year frequency storm.</p>				
<b>Stormwater Management Code</b>	Yes	-	State & Local	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p>The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.</p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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- Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?

Not all provisions of this law have become effective at the time of the writing of this plan.

<b>Growth Management</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

<b>Environmental Protection Ordinance(s)</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

<b>Flood Damage Prevention Ordinance</b>	Yes	Ordinance 2-24: Floodplain Management Regulations	State & Local	Township Engineer
How has or will this be integrated with the HMP and how does this reduce risk?				
The purposes and objectives of these regulations are to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific flood hazard areas through the establishment of comprehensive regulations for management of flood hazards areas, designed to:				
a) Protect human life and health				
b) Prevent unnecessary disruption of commerce, access, and public service during times of flooding				
c) Manage the alteration of natural floodplains, stream channels and shorelines				
d) Manage filling, grading, dredging, and other development which may increase flood damage or erosion potential				
e) Prevent or regulate the construction of flood barriers which will divert floodwater or increase flood hazards				
f) Contribute to improved construction techniques in the floodplain				
g) Minimize damage to public and private facilities and utilities				
h) Help and maintain a stable tax base by providing for the sound use and development of flood hazard areas				
i) Ensure that property owners, occupants, and potential owners are aware of property located in flood hazard areas				
j) Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events				
k) Meet the requirements of the National Flood Insurance Program for community participation set forth in Title 44 Code of Federal Regulations, Section 59.22.				

<b>Wellhead Protection</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

<b>Emergency Management Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

<b>Climate Change Ordinance</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

#### PLANNING DOCUMENTS

<b>General/Comprehensive Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				







	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Capital Improvement Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Disaster Debris Management Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Floodplain Management or Watershed Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Stormwater Management Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Stormwater Pollution Prevention Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Open Space Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Urban Water Management Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Habitat Conservation Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Economic Development Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Shoreline Management Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Community Wildfire Protection Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Community Forest Management Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Transportation Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Agriculture Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Climate Action/ Resilience/Sustainability Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Tourism Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Business/ Downtown Development Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Continuity of Operations Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Substantial Damage Response Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Threat and Hazard Identification and Risk Assessment</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Post-Disaster Recovery Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Public Health Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-



### 25.3.2 Development and Permitting Capability

Table 25-3 summarizes the capabilities of Walpack to oversee and track development.

Table 25-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits?	Yes	Township Engineer
<ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>		
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain
Do you have a buildable land inventory?	No	-
<ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>		
Describe the level of buildout in your jurisdiction.	N/A	Because the National Park Service owns the majority of land in the Township, opportunities for developing land are incredibly rare.

### 25.3.3 Administrative and Technical Capability

Table 25-4 summarizes potential staff and personnel resources available to Walpack and their current responsibilities that contribute to hazard mitigation.

Table 25-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	No	-
Zoning Board of Adjustment	No	-
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	No	-
Construction/Building/Code Enforcement Department	Yes	The Construction Office is the enforcing agency of the Uniform Construction Codes.
Emergency Management/Public Safety Department	No	-



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	With surrounding communities and State Police: EMS – Blue Ridge for north end and Blairstown Rescue Squad for south end; participation in the County 911 system; firefighting services by shared agreement with Sandyston Township Volunteer Fire Department
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Township Engineer and work with County engineering when necessary
Engineers or professionals trained in building or infrastructure construction practices	Yes	Township Construction Official in cooperation with the County
Planners or engineers with an understanding of natural hazards	Yes	Township Engineer
Staff with expertise or training in benefit/cost analysis	Yes	Township Engineer
Professionals trained in conducting damage assessments	Yes	Construction Official and Township Engineer
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Emergency Operations Coordinator
Grant writers	No	-
<i>Consider the following:</i> Are data and maps from the HMP used to support documentation in grant applications?		
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	The NFIP Floodplain Administrator is the Township Engineer.



### 25.3.4 Fiscal Capability

Table 25-5 summarizes financial resources available to Walpack.

Table 25-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Unknown
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 25.3.5 Education and Outreach Capability

Table 25-6 summarizes the education and outreach resources available to Walpack.

Table 25-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Mayor and Clerk
Personnel skilled or trained in website development	Yes	Contracted Individual
Hazard mitigation information available on your website	Yes	Community Notifications
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	County 911 System
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-



### 25.3.6 Community Classifications

Table 25-7 summarizes classifications for community programs available to Walpack.

Table 25-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New Jersey Sustainable Jersey Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 25.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 25-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 25-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate



Hazard	Adaptive Capacity - Strong/Moderate/Weak
Wildfire	Moderate

## 25.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 25-1 is responsible for maintaining this information.

### 25.4.1 NFIP Statistics

Table 25-9 summarizes the NFIP policy and claim statistics for Walpack.

Table 25-9. Walpack NFIP Summary of Policy and Claim Statistics

# Policies	0
# Claims (Losses)	1
Total Loss Payments	\$7,076.41
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA Region II 2024

### 25.4.2 Flood Vulnerability Summary

Table 25-10 provides a summary of the NFIP program in Walpack.

Table 25-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Flooding in the Township occurs within the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	Yes – no property owners are currently interested





NFIP Topic	Comments
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	None
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Township Engineer
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	FEMA online resources
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Yes, additional training for a new floodplain administrator would be useful.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit review, engineering capability
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the value of the proposed development would increase the structure's value by at least 50 percent.
What are the barriers to running an effective NFIP program in the community, if any?	Funding and personnel
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	July 31, 2006
What is the local law number or municipal code of your flood damage prevention ordinance?	Ordinance 2-24: Floodplain Management Regulations
What is the date that your flood damage prevention ordinance was last amended?	September 24, 2024
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets, however the flood damage prevention ordinance requires update.
Are there other local ordinances, plans, or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Township has subdivision and site plan ordinances.



NFIP Topic	Comments
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

## 25.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 25-11 through Table 25-13.

Table 25-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 25-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There has not been any recent major development or infrastructure in the Township between 2019 and the present.					

\* Only location-specific hazard zones or vulnerabilities identified.



Table 25-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
There are no known or anticipated major development or infrastructure in the Township in the next five years.					

## 25.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Walpack's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 25.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in

Figure 25-1 through Figure 25-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Walpack has significant exposure. The maps show the location of potential new development, where available.



Figure 25-1. Walpack Flood and Sinkhole Hazard Area Extent and Location Map

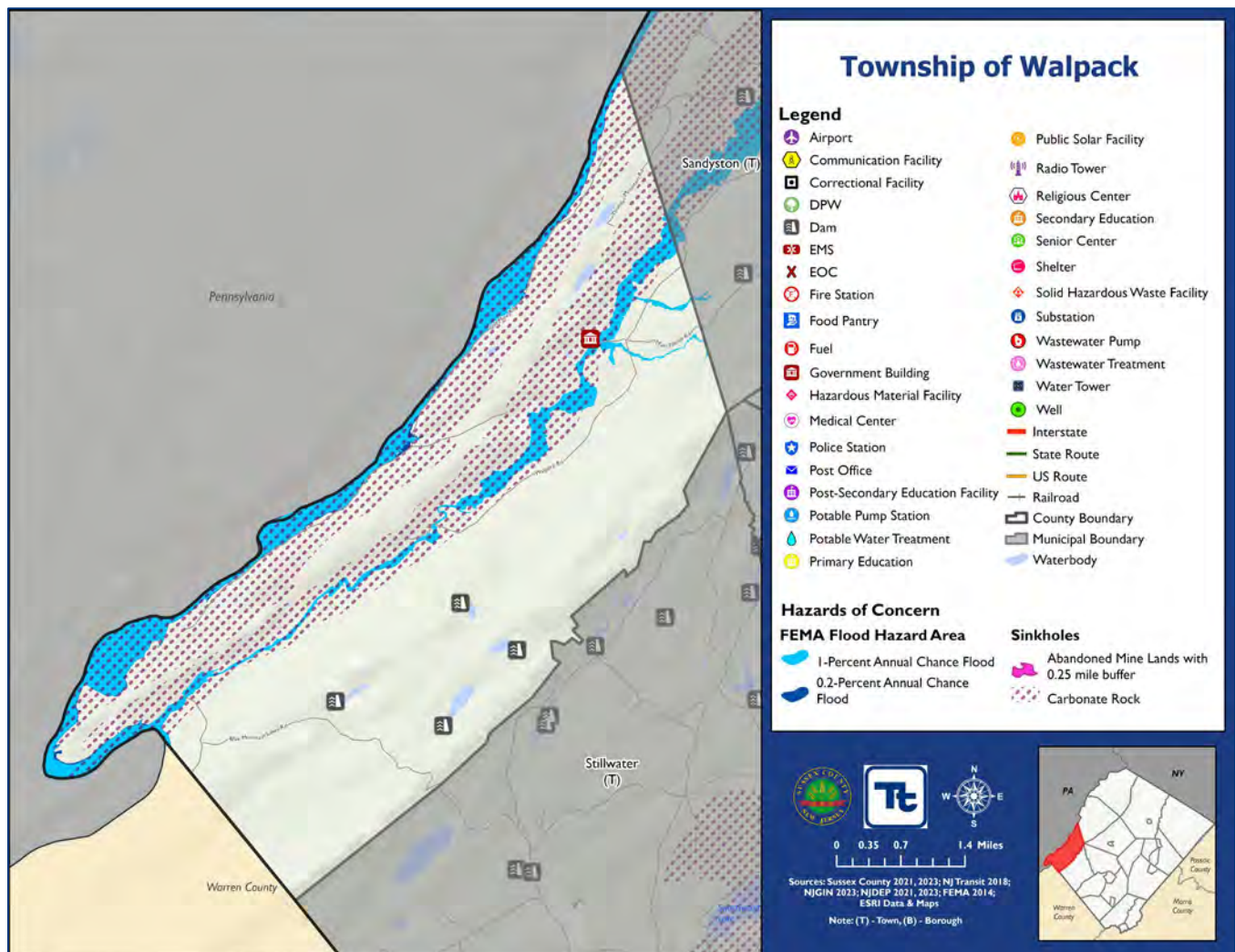




Figure 25-2. Walpack Hazardous Materials and Wildfire Hazard Area Extent and Location Map

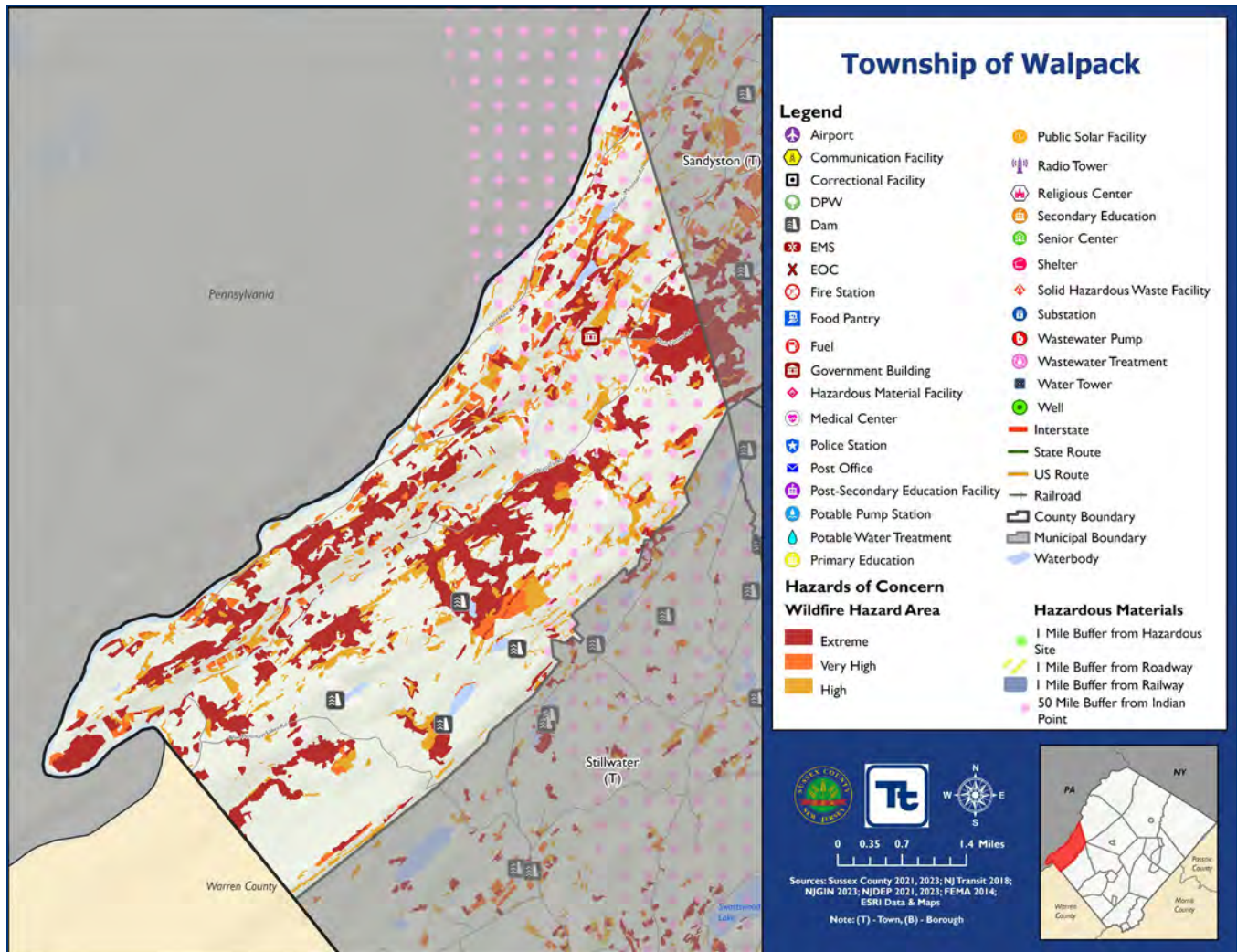
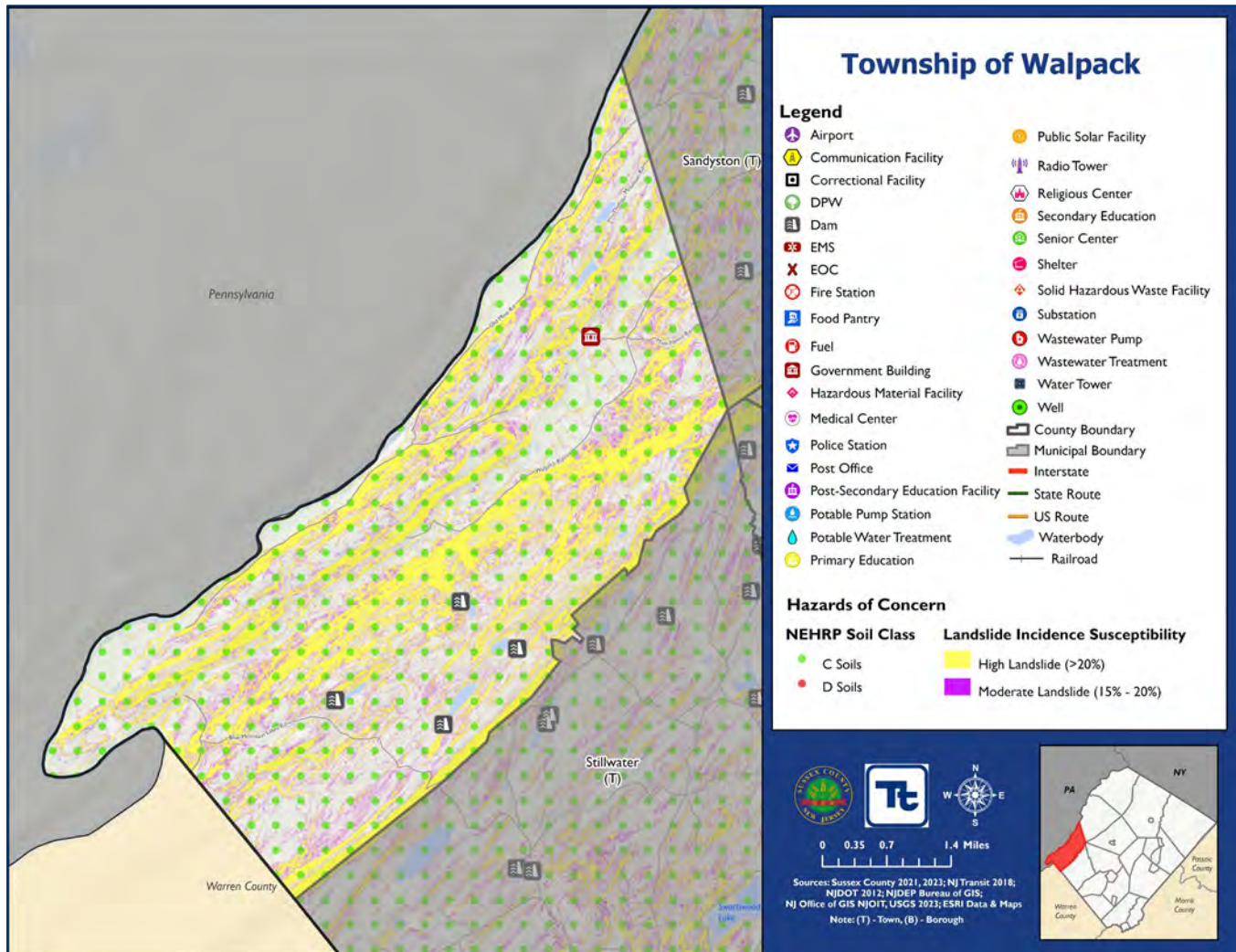




Figure 25-3. Walpack Landslide and NEHRP Soils Hazard Area Extent and Location Map





## 25.6.2 Hazard Event History

The history of natural and non-natural hazard events in Walpack is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 25-14 provides details on loss and damage in Walpack during hazard events since the last hazard mitigation plan update.

Table 25-14. Hazard Event History in Walpack

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Walpack
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Township implemented masking and social distancing mandates. Non-emergent personnel were permitted to work from home.
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Downed trees and power lines.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	Heavy snowfall and high snow accumulations impacted the Township. No damages or losses occurred to Township property.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	Flash flooding resulted in road closures.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 25.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Walpack .

### Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of





the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Walpack reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the hazard rankings were appropriate.

Table 25-15 shows Walpack's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 25-15. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	High
Geological Hazards	Medium
Hazardous Materials	Low
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 25-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 25-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
The Township does not have any identified critical facilities located in the 1- or 0.2-percent annual chance floodplains.					

Source: NJGIN 2023; Sussex County 2021, 2023



## 25.6.4 Identified Issues

After review of Walpack's hazard event history, hazard rankings, hazard location, and current capabilities, Walpack identified the following vulnerabilities within the community:

- The Township lacks a Disaster Debris Management Plan to address post disaster cleanup. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Township does not have a comprehensive/master plan written to assist in providing guidance for future land use in the jurisdiction. Incorporating hazard mitigation principles into the comprehensive plan can assist in the prevention of land development in hazard areas, such as floodplains and bordering forested areas.
- The Township does not have an adopted Emergency Operations Plan. Emergency Operation Plans outline incident responses, taking into account both natural and manmade hazards. It is crucial to include hazard mitigation principles into the Township's Emergency Operations Plan. Understanding and acknowledging those vulnerable to hazards and properly planning and storing any emergency action plans or procedures is pertinent to the safety and resilience of the Township.
- The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.
- The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- The Township does not have any certified floodplain managers (CFM) on staff. The Township Engineer is new to the role of Floodplain Administrator. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.
- Backup power sources are necessary to maintain critical services for critical facilities. The Township Municipal Building requires a backup power source. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.
- The Township experiences isolated low-lying roadway flooding not directly associated with floodplain (mainly at Old Mine Road and National Park Service Route 615 near the Flat Brook Bridge). The roadways are under the jurisdiction of the National Park Service. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.
- Downed trees often result in power loss in the Township during storm events. The Park Service is responsible for clearing of downed trees. JCP&L has been trying to relocate lines out to the main road. Old powerlines run through woods that are hard to access. Power loss during hazard events can be detrimental during periods of extreme heat or cold. The loss of power can also impede a constituent's ability to call for emergency assistance.



- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.

\* This issue was identified as a specific area of concern based on resident response to the Sussex County Hazard Mitigation Citizen survey.

## 25.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 25.7.1 Past Mitigation Action Status

Table 25-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 25.7.2 Additional Mitigation Efforts

Walpack did not identify any additional mitigation efforts completed since the last HMP.



Table 25-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Walpack-001	Municipal Building Backup Power	Severe Storm, Severe Winter Storm, Hurricane, Nor'easter	Engineer, Emergency Manager	<p><b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. The Township Municipal Building requires a backup power source.</p> <p><b>Solution:</b> The Engineer will research what size generator is needed to power the Township Municipal Building. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Municipal Building.</p>	<p>1. No Progress</p> <p>2. The Township was not able to secure funding for this project</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. Not applicable</p>
2020-Walpack-002	Relocate Power Lines	Severe Storm, Severe Winter Storm, Hurricane, Nor'easter	JCP&L, Township Administration, National Park Service	<p><b>Problem:</b> Downed trees often result in power loss in the Township during storm events.</p> <p><b>Solution:</b> The Township will support JCP&amp;L efforts to relocate power lines out of wooded areas to areas along roadways. This will reduce likelihood of falling trees resulting in power loss and increased</p>	<p>1. No Progress</p> <p>2. The Township prioritized other projects due to funding and staffing constraints.</p>	<p>1. Include</p> <p>2. Keep as is</p> <p>3. Not applicable</p>



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				capability for tree trimming.		
2020-Walpack-003	Low-lying Roadway Flooding	Severe Storm, Flood	National Park Service, Township Administration	<p><b>Problem:</b> The Township experiences isolated areas of roadway flooding not directly associated with flood plain (mainly at Old Mine Road and National Park Service Route 615 near the Flat Brook Bridge).</p> <p><b>Solution:</b> The Township will work with the National Park Service to identify flooding of low-lying roadways. An engineering study will be conducted to determine cost-effective mitigation actions. The National Park Service will then implement the identified actions when funding is available. The Township will partner on grant applications where feasible.</p>	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable
2020-Walpack-004	Update Flood Damage Prevention Ordinance	Flood	Administration	<p><b>Problem:</b> The Township's Flood Damage Prevention Ordinance is outdated and requires update.</p> <p><b>Solution:</b> The Township will update and adopt a</p>	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				new Ordinance to meet current standards. The Ordinance will also change the floodplain administrator from the clerk to the engineer.		
2020-Walpack-005	Floodplain Administrator Training	Flood	Administration	<b>Problem:</b> The Township Engineer is new to the role of Floodplain Administrator.  <b>Solution:</b> The Engineer will attend training for floodplain administration offered by FEMA and NJ DEP.	1. No Progress 2. The Township prioritized other projects due to funding and staffing constraints.	1. Include 2. Keep as is 3. Not applicable



### 25.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Walpack participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Walpack would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 25-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 25-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.





Table 25-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X		X			X
Disease Outbreak	X	X		X	X		X			X
Drought	X	X		X	X		X			X
Earthquake	X	X		X	X		X			X
Flood	X	X		X	X		X		X	X
Geological Hazards	X	X		X	X		X			X
Hazardous Materials	X	X		X	X		X			X
Hurricane	X	X	X	X	X		X	X	X	X
Infestation	X			X	X		X			X
Nor'easter	X	X	X	X	X		X	X	X	X
Severe Weather	X	X	X	X	X		X	X	X	X
Severe Winter Weather	X	X	X	X	X		X	X		X
Wildfire	X	X		X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 25-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-WalpackTwp-01	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-WalpackTwp-02	Comprehensive Master Plan	0	1	1	1	1	1	1	1	1	1	1	1	0	0	11	High
2025-WalpackTwp-03	Emergency Operations Plan	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2025-WalpackTwp-04	Socially Vulnerable Populations Outreach	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-WalpackTwp-05	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-WalpackTwp-06	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-WalpackTwp-07	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-WalpackTwp-08	Generators at Critical Facilities	1	1	1	1	1	0	0	1	1	1	0	1	1	0	10	Medium
2025-WalpackTwp-09	Low-Lying Roadway Flooding	0	1	1	1	1	1	0	0	1	0	1	1	0	1	9	Medium
2025-WalpackTwp-10	Relocate Power Lines	1	1	1	1	0	0	1	1	0	1	1	1	1	0	10	Medium
2025-WalpackTwp-11	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



## Action 2025-WalpackTwp-01. Disaster Debris Management Plan

<b>Lead Agency:</b>	Emergency Management																
<b>Supporting Agencies:</b>	Public Works, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available								
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-WalpackTw-02. Comprehensive Master Plan

<b>Lead Agency:</b>	Township Administration		
<b>Supporting Agencies:</b>	Planning Contractor, Engineering		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Township does not have a comprehensive/master plan written to assist in providing guidance for future land use in the jurisdiction. Incorporating hazard mitigation principles into the comprehensive plan can assist in the prevention of land development in hazard areas, such as floodplains and bordering forested areas.		
<b>Description of the Solution:</b>	The Township's Administration, along with planners, engineers, and subject matter experts, will work to develop a Comprehensive Master Plan with additional elements, as the Township sees fit. Additional elements may include conservation, preservation and open space, sustainability, historic preservation, economic development, and stormwater management.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, NJDCA, Township Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 4, 5		
<b>Benefits:</b>	A Comprehensive Master Plan is a coordinated approach to municipal planning that is designed to benefit residents as well as businesses and to ensure quality of life standards as the municipality continues to grow. The planning document is developed to guide the use of lands within the municipality in a manner which protects public health and safety and promotes the general welfare.		
<b>Impact on Socially Vulnerable Populations:</b>	The inclusion of additional elements, such as open space, conservation, and sustainability can be beneficial to identifying how future conditions may impact socially vulnerable populations. In particular, the addition of hazard mitigation elements into the Comprehensive Master Plan can assist in evaluating how future land use decision will impact these populations.		
<b>Impact on Future Development:</b>	Comprehensive master plans seek to guide land use within a municipality, which will directly impact future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	The Comprehensive Master Plan establishes mechanisms for preserving environmental, historic, and cultural resources, and integrates the various components involving community life through community facilities, circulation/transportation, and utilities plans.		
<b>Impact on Capabilities:</b>	The Township will have improved capabilities for future development and land use planning.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. Elements of a Comprehensive Master Plan may include conservation, preservation and open space, sustainability, historic preservation, and stormwater management – all which can contribute to mitigating impacts felt by climate change projections.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Current problem remains
	Hire contractor to write full Comprehensive Master Plan with no municipal input		Plan may be missing integral pieces of the Comprehensive Master Plan



	Write Comprehensive Master Plan with no elements	Comprehensive Master Plan will not be comprehensive and may miss critical pieces to address land use needs
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## Action 2025-WalpackTwp-03. Emergency Operations Plan

<b>Lead Agency:</b>	Emergency Management		
<b>Supporting Agencies:</b>	Township Administration, Sussex County		
<b>Hazard(s) of Concern:</b>	<div> <input checked="" type="checkbox"/> Dam Failure         <input checked="" type="checkbox"/> Disease Outbreak         <input checked="" type="checkbox"/> Drought         <input checked="" type="checkbox"/> Earthquake         <input checked="" type="checkbox"/> Flood         <input checked="" type="checkbox"/> Geological Hazards         <input checked="" type="checkbox"/> Hazardous Materials       </div> <div> <input checked="" type="checkbox"/> Hurricane         <input checked="" type="checkbox"/> Infestation         <input checked="" type="checkbox"/> Nor'easter         <input checked="" type="checkbox"/> Severe Weather         <input checked="" type="checkbox"/> Severe Winter Weather         <input checked="" type="checkbox"/> Wildfire       </div>		
<b>Description of the Problem:</b>	The Township does not have an adopted Emergency Operations Plan. Emergency Operation Plans outline incident responses, taking into account both natural and manmade hazards. It is crucial to include hazard mitigation principles into the Township's Emergency Operations Plan. Understanding and acknowledging those vulnerable to hazards and properly planning and storing any emergency action plans or procedures is pertinent to the safety and resilience of the Township.		
<b>Description of the Solution:</b>	The Township will write and adopt an Emergency Operations Plan and integrate hazard mitigation principles during the process.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	1 year		
<b>Goals Met:</b>	5, 6		
<b>Benefits:</b>	The Emergency Operations Plan (EOP) details what the Township will do during a disaster (incident command implementation, command center location and activities, specific plans by department, etc.). Updating the EOP will permit the Township to integrate new plans, policies, capabilities, and hazard assessments.		
<b>Impact on Socially Vulnerable Populations:</b>	The section overview portion of the Emergency Operation Plan covers a discussion of a variety of topics, including population distribution and locations, including any concentrated populations of individuals with disabilities, others with access and functional needs, or individuals with limited English proficiency.		
<b>Impact on Future Development:</b>	Not applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	The section overview portion of the Emergency Operation Plan covers a discussion of a variety of topics, including vulnerable critical facilities (e.g. nursing homes, schools, hospitals, infrastructure).		
<b>Impact on Capabilities:</b>	This action will create a new planning capability of the Township and support emergency response capabilities.		
<b>Climate Change Considerations:</b>	As impacts from climate change are increasingly felt, the contents in an Emergency Operations Plan, including in the basic plan and any annexes, may need to be updated.		
<b>Mitigation Category</b>	<div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)         <input type="checkbox"/> Structure and Infrastructure Project (SIP)       </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)         <input type="checkbox"/> Education and Awareness Programs (EAP)       </div>		
<b>CRS Category</b>	<div> <input type="checkbox"/> Preventative Measures (PR)         <input type="checkbox"/> Property Protection (PP)         <input type="checkbox"/> Public Information (PI)       </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)         <input type="checkbox"/> Structural Flood Control Projects (SP)         <input checked="" type="checkbox"/> Emergency Services (ES)       </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		Current problem remains
	Integrate hazard mitigation principles in only hazard appendices		The plan will miss integration opportunities in the basic plan and annexes
	Have County write Emergency Operations Plan		County will not now full capabilities of Township



## Action 2025-WalpackTwp-04. Socially Vulnerable Populations Outreach

<b>Lead Agency:</b>	Emergency Management										
<b>Supporting Agencies:</b>	Township Administration, Sussex County										
<b>Hazard(s) of Concern:</b>	<div><div><input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials</div><div><input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire</div></div>										
<b>Description of the Problem:</b>	The Township does not have any organizations that conduct outreach to socially vulnerable populations and underserved populations. Identifying and educating these populations can increase resiliency in the Township and potentially reduce the number of emergency calls during hazardous events.										
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for socially vulnerable populations. Methods of distribution may include Township events, the Township newsletters, social media, the Township website, and having the materials on display for the public at Township libraries and offices. Consider hiring staff to work directly with socially vulnerable populations.										
<b>Estimated Cost:</b>	Low										
<b>Potential Funding Sources:</b>	Township Budget, HMGP										
<b>Implementation Timeline:</b>	Within 3 years										
<b>Goals Met:</b>	1, 2, 3, 7										
<b>Benefits:</b>	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Township. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.										
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township will become educated on hazards risks. The Township will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.										
<b>Impact on Future Development:</b>	Not applicable										
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.										
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.										
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</div>										
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)</div>										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current methods remain the only ones used</td></tr><tr><td>Rely on state or federal resources</td><td>Resources may be generalized and not specific to the risks in the Township</td></tr><tr><td>Use only a few methods for distribution</td><td>Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance</td></tr></table>	Action	Evaluation	No action	Current methods remain the only ones used	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance		
Action	Evaluation										
No action	Current methods remain the only ones used										
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township										
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance										





## Action 2025-WalpackTwp-05. Public Education and Outreach

<b>Lead Agency:</b>	Emergency Management										
<b>Supporting Agencies:</b>	Township Administration, Sussex County										
<b>Hazard(s) of Concern:</b>	<div><div><input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials</div><div><input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire</div></div>										
<b>Description of the Problem:</b>	The Township currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.										
<b>Description of the Solution:</b>	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Sussex County on their program that provides information to the municipalities.										
<b>Estimated Cost:</b>	Low										
<b>Potential Funding Sources:</b>	Municipal Budget										
<b>Implementation Timeline:</b>	2 years										
<b>Goals Met:</b>	1, 2, 3, 7										
<b>Benefits:</b>	This action will improve the current public education and outreach program in the Township by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Township.										
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Township.										
<b>Impact on Future Development:</b>	Not applicable										
<b>Impact on Critical Facilities/Lifelines:</b>	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.										
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.										
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.										
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</div>										
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)</div>										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current methods remain the only ones used</td></tr><tr><td>Rely on state or federal resources</td><td>Resources may be generalized and not specific to the risks in the Township</td></tr><tr><td>Use only a few methods for distribution</td><td>Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance</td></tr></table>	Action	Evaluation	No action	Current methods remain the only ones used	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance		
Action	Evaluation										
No action	Current methods remain the only ones used										
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township										
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance										



## Action 2025-WalpackTwp-06. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator										
<b>Supporting Agencies:</b>	Planning Board, Township Administration										
<b>Hazard(s) of Concern:</b>	<div> <input type="checkbox"/> Dam Failure         <input type="checkbox"/> Disease Outbreak         <input type="checkbox"/> Drought         <input type="checkbox"/> Earthquake         <input checked="" type="checkbox"/> Flood         <input type="checkbox"/> Geological Hazards         <input type="checkbox"/> Hazardous Materials       </div> <div> <input type="checkbox"/> Hurricane         <input type="checkbox"/> Infestation         <input type="checkbox"/> Nor'easter         <input type="checkbox"/> Severe Weather         <input type="checkbox"/> Severe Winter Weather         <input type="checkbox"/> Wildfire       </div>										
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.										
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.										
<b>Estimated Cost:</b>	Staff time, Low										
<b>Potential Funding Sources:</b>	Township Budget										
<b>Implementation Timeline:</b>	Within 2 years										
<b>Goals Met:</b>	1, 2, 5										
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.										
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.										
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.										
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.										
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.										
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)										
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table border="1"> <thead> <tr> <th>Action</th> <th>Evaluation</th> </tr> </thead> <tbody> <tr> <td>No action</td> <td>Current problem remains</td> </tr> <tr> <td>Only share opportunities when notified of grant funding</td> <td>May not be enough time to garner interest or write application</td> </tr> <tr> <td>Wait for information from the State on flood-damaged properties</td> <td>May be a delay in notice</td> </tr> </tbody> </table>	Action	Evaluation	No action	Current problem remains	Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application	Wait for information from the State on flood-damaged properties	May be a delay in notice		
Action	Evaluation										
No action	Current problem remains										
Only share opportunities when notified of grant funding	May not be enough time to garner interest or write application										
Wait for information from the State on flood-damaged properties	May be a delay in notice										



## Action 2025-WalpackTwp-07. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Engineering, Building Department, Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. The Township Engineer is new to the role of Floodplain Administrator. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-WalpackTwp-08. Generators at Critical Facilities

<b>Lead Agency:</b>	Engineering		
<b>Supporting Agencies:</b>	Public Works, Fire Department, Township Administration		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input checked="" type="checkbox"/> Disease Outbreak  <input checked="" type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input checked="" type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	Backup power sources are necessary to maintain critical services for critical facilities. The Township Municipal Building requires a backup power source. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.		
<b>Description of the Solution:</b>	<p>The Township Engineer will research what size generator is needed to power the Township Municipal Building. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Township Hall.</p> <p>Public Works will be responsible for maintenance of generators.</p>		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5, 6, 7		
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	



## Action 2025-WalpackTwp-09. Low-Lying Roadway Flooding

<b>Lead Agency:</b>	National Park Service		
<b>Supporting Agencies:</b>	Township Administration		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	The Township experiences isolated low-lying roadway flooding not directly associated with floodplain (mainly at Old Mine Road and National Park Service Route 615 near the Flat Brook Bridge). The roadways are under the jurisdiction of the National Park Service. Flooded roadways can impact evacuation routes, prevent emergency responders from reaching a location, and impede on necessary medical appointments or needs for vulnerable populations.		
<b>Description of the Solution:</b>	The Township will work with the National Park Service to identify flooding of low-lying roadways. An engineering study will be conducted to determine cost-effective mitigation actions. The National Park Service will then implement the identified actions when funding is available. The Township will partner on grant applications where feasible.		
<b>Estimated Cost:</b>	Dependent on chosen measure		
<b>Potential Funding Sources:</b>	HMGP, BRIC, Township Budget, National Park Service		
<b>Implementation Timeline:</b>	4 years		
<b>Goals Met:</b>	2		
<b>Benefits:</b>	This action would reduce the flooding impacts felt by the Township from the Delaware River and Flat Brook.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will assist socially vulnerable populations whose properties are impacted by flooding from the Delaware River and Flat Brook. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.		
<b>Impact on Future Development:</b>	Future development in the impacted area will be less likely to be flooded.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action would assist in the reduction of roadway flooding from the Delaware River and Flat Brook, permitting first responders to traverse the roadways safely.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem continues	
	Elevate roadways	Costly and may not solve problem	
	Relocate roadways	Not possible	



## Action 2025-WalpackTwp-10. Relocate Power Lines

<b>Lead Agency:</b>	JCP&L		
<b>Supporting Agencies:</b>	Township Administration, National Park Service		
<b>Hazard(s) of Concern:</b>	<input type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	Downed trees often result in power loss in the Township during storm events. The Park Service is responsible for clearing of downed trees. JCP&L has been trying to relocate lines out to the main road. Old powerlines run through woods that are hard to access. Power loss during hazard events can be detrimental during periods of extreme heat or cold. The loss of power can also impede a constituent's ability to call for emergency assistance.		
<b>Description of the Solution:</b>	The Township will support JCP&L efforts to relocate power lines out of wooded areas to areas along roadways. This will reduce likelihood of falling trees resulting in power loss and increased capability for tree trimming.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	National Park Service, JCP&L		
<b>Implementation Timeline:</b>	4 years		
<b>Goals Met:</b>	1, 2, 5, 7		
<b>Benefits:</b>	This action will result in the reduction of risk surrounding power outages by minimizing potential impacts from trees on utility lines.		
<b>Impact on Socially Vulnerable Populations:</b>	Some socially vulnerable population rely on power utilities for everyday care. If power outages are caused by a lack of tree maintenance, lives could potentially be at risk.		
<b>Impact on Future Development:</b>	This action assists in the protection of future development from impacts caused by tree collapses or branch falls as a result of severe weather, severe winter weather, hurricanes, and nor'easters.		
<b>Impact on Critical Facilities/Lifelines:</b>	Utility lines provide power to residencies, private businesses, government entities, and various providers. Not maintaining trees, tree limbs, or tree branches may impact the availability of power during severe weather and severe winter weather events.		
<b>Impact on Capabilities:</b>	Not applicable		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to trees or tree limbs/branches falling or impacting utility lines and property.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP) <input checked="" type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input checked="" type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No action	Current problem remains	
	Do not support efforts	JCP&L may locate utility lines in inopportune locations along County roads	
	Bury wires	Cost prohibitive	





## Action 2025-WalpackTwp-11. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator																
<b>Supporting Agencies:</b>	Emergency Management, Building Department																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"><li>• Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li><li>• Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li><li>• Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li><li>• Require permits for floodplain development.</li></ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>																
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan																
<b>Goals Met:</b>	2, 5																
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.																
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.																
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.																
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.																
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.																
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input checked="" type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input checked="" type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>															





	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## 26. TOWNSHIP OF WANTAGE

This jurisdictional annex to the Sussex County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Township of Wantage with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of Wantage, describes who participated in the planning process, assesses Wantage's risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

### 26.1 HAZARD MITIGATION PLANNING TEAM

The Township of Wantage identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Township departments. The Emergency Management Coordinator represented the community on the Sussex County HMP Planning Partnership, Steering Committee, and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 26-1 summarizes Township officials who participated in the development of the annex and in what capacity. Additional documentation of the Township's planning activities through Planning Partnership meetings is included in Volume I.

Table 26-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Joe Konopinski, EMC Address: 888 State Highway 23, Wantage Township, NJ 07461 Phone Number: (973) 875-7192 Email: oem@wantagetwp-nj.org	Name/Title: Michael Restel, CPWM, Township Administrator Address: 888 State Highway 23, Wantage Township, NJ 07461 Phone Number: (973) 875-7192 Email: mike@wantagetwp-nj.org
<b>National Flood Insurance Program Floodplain Administrator</b>	
Name/Title: Harold Pellow, Township Engineer Address: 17 Plains Road Augusta, New Jersey 07822 Phone Number: (973) 948-6463 Email: hpellow@hpellow.com	
<b>Additional Contributors</b>	
Name/Title: Mark Little CPWM, Public Works Superintendent Method of Participation: Assisted in the completion of municipal worksheets; reviewed and approved final draft annex.	
Name/Title: Steve Danner, Code Enforcement Method of Participation: Assisted in the completion of municipal worksheets.	
Name/Title: Joe Konopinski, EMC Method of Participation: Completed review of previous mitigation actions; reviewed hazard ranking; identified issues in the Township; reviewed and approved final draft annex.	
Name/Title: Harold Pellow, Township Engineer Method of Participation: Reviewed and approved final draft annex.	
Name/Title: Joe Butto, Construction Official Method of Participation: Reviewed and approved final draft annex.	



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Name/Title: Melissa Morles, Municipal Clerk  
Method of Participation: Reviewed and approved final draft annex.

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## 26.2 COMMUNITY PROFILE

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Wantage Township is located in northern Sussex County. The Township fully surrounds the Borough of Sussex. New York State is located to the north, the Townships of Lafayette and Hardyston are located to the south, Vernon Township is located to the east and Montague and Frankford Townships are located to the west. It has a total area of 67.5 square miles. The following unincorporated communities are located within the Township: Mount Salem, Rockport, Hanford, Colesville, Van Syckles, Quarryville, Libertyville, Plumbsock, Beemerville, Woodbourne, McCoys Corner, Lewisburg, Martins, Papakating, and Roys. The Wallkill River forms the eastern border of the Township and its tributaries flow through the Township as well. Other streams, ponds and lakes in the Township include, but not limited to: Hanford Brook, Clove Brook, West Branch Papakating Creek and its tributaries, Papakating Creek, Clove Acres Lake, Lake Windsor, Lake Neepaulin, Herzenberg Lake, and Lake Rutherford.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2021 American Community Survey 5-Year Population Estimates indicates that 5.8-percent of the population is 5 years of age or younger, 7.7-percent is 65 years of age or older, 5.5-percent is non-English speaking, 11.2-percent is below the poverty threshold, and 9.5-percent is considered disabled.

The Steering Committee also identified households that are above the Federal Poverty Level but earn less than the basic cost of living as socially vulnerable. For the Township of Wantage, 36-percent of households earn less than the basic cost of living and are considered socially vulnerable.

## 26.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Wantage performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Wantage to identify opportunities for integrating mitigation concepts into ongoing Township procedures.



## 26.3.1 Planning and Regulatory Capability and Integration

Table 26-2 summarizes the planning and regulatory tools that are available to Wantage.

Table 26-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
<b>Building Code</b>	Yes	Chapter 8: Building and Housing	State & Local	Township Committee
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The State Uniform Construction Code, building subcode, is hereby adopted and incorporated as fully as if set forth at length herein. The provisions shall be controlling in the construction, alteration, renovation, rehabilitation, maintenance, occupancy, and use of all buildings and structures therein contained within the corporate limits of the Township. The Construction Official is the chief administrator of the enforcing agency.</i></p>				
<b>Zoning/Land Use Code</b>	Yes	Chapter 13: Zoning	Local	Zoning Officer
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The general intent of the code is to establish a precise and detailed plan for the use of land in the township based on the master plan for Wantage Township and enacted in order to promote and to protect the public health, safety, morals, comfort, convenience and the general welfare. This chapter is intended to regulate the use of land within zoning districts, promote orderly development, regulate intensity of use and the location of buildings, establish standards of development, prohibit incompatible uses, regulate the alteration of existing buildings, limit congestion in the roads, protect against hazards, and conserve the taxable value of land, and generally to promote the purposes of zoning as set forth.</i></p> <p><i>The Township has a floodplain district that prohibits filling, draining, constructing levees and bulkheads, or improving land to eliminate or reduce flooding or erosion. When updating the Zoning Ordinance, the Township will recognize hazard areas as limits on changes to zoning within the municipality.</i></p>				
<b>Subdivision Code</b>	Yes	Chapter 12: Land Subdivision	Local	Land Use Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The land subdivision code (Chapter 12) provides the rules, regulations, and standards to guide land subdivision in the township in order to promote the public health, safety, convenience, and general welfare of the township. When reviewing subdivision applications, the Land Use Board will look for floodplains and wetlands. When submitting an application, the property owner must show flood hazard areas, steep slopes, and natural terrain features.</i></p>				
<b>Site Plan Code</b>	Yes	Chapter 16: Site Plan	Local	Land Use Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>In the Township, site plan review and approval is required before any change of use, or before any excavation, removal of soil, clearing of a site or placing of any fill on lands contemplated for development, and, except as hereinafter provided, no building permit shall be issued for any building or use, or reduction or enlargement in size or other alteration of any building or change in use of any building including accessory structures unless a site plan is first submitted and approved by the reviewing board and no certificate of occupancy shall be given unless all construction and development conform to the plans as approved by the reviewing board.</i></p>				
<b>Stormwater Management Code</b>	Yes	Chapter 14a: Stormwater Control	Local	Land Use Board
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p> <p><i>The purpose of this article is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. An identified objective of this ordinance is to minimize increases in the volumes and rates of stormwater runoff from land development activities in order to reduce flooding and streambank erosion.</i></p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Post-Disaster Recovery/ Reconstruction Code</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Real Estate Disclosure Requirements</b>	Yes	Senate Bill 3110; P. L. 2023, c. 93, July 3, 2023	State	Sellers and Landlords of commercial or residential property

How has or will this be integrated with the HMP and how does this reduce risk?

*For leases, the law amends the New Jersey Truth-in-Renting Act, N.J.S.A. 46:8-43 et seq., to require every landlord to notify in writing each of the landlord's tenants, prior to lease signing or renewal, whether the property is located in the Federal Emergency Management Agency (FEMA) Special Flood Hazard Area ("100-year floodplain") or Moderate Risk Flood Hazard Area ("500-year floodplain") and if the landlord has actual knowledge that the rental premises or any portion of the parking areas of the real property containing the rental premises has been subjected to flooding. The law does not apply to (1) landlords who lease commercial space or residential dwellings for less than one month, (2) residential dwellings in a premises containing not more than two units, (3) owner-occupied premises containing not more than three units, or (4) hotels, motels, or other guest houses serving transient or seasonal guests for a period of less than 120 days.*

*The model notice is to contain the heading "Flood Risk" and questions for the landlord to answer regarding the landlord's actual knowledge of past flooding of the property. The questions regarding the property being in a FEMA Special or Moderate Risk Flood Hazard Area shall not contain the option for "unknown." To determine how the questions are to be answered, FEMA's current flood insurance rate maps for the leased premises area must be consulted. The landlord will be required to answer whether the rental premises or any portions of the parking areas of the real property containing the rental premises ever experienced any flood damage, water seepage, or pooled water due to a natural flood event and, if so, the number of times that has occurred.*

*The notice to residential tenants must also indicate that flood insurance may be available to renters through FEMA's National Flood Insurance Program to cover their personal property and contents in the event of a flood and that standard renter's insurance does not typically cover flood damage.*

*For sales, the law also amends the New Jersey Consumer Fraud Act, N.J.S.A. 56:8-1 et seq., to require sellers of real property to disclose, on the property condition disclosure statement, whether the property is located in the FEMA Special or Moderate Risk Flood Hazard Area and any actual knowledge of the seller concerning flood risks of the property to the purchaser before the purchaser becomes obligated under any contract for the purchase of the property.*

*The disclosure statement must contain the heading "Flood Risk" and ask the seller the following questions:*

- Is any or all of the property in the Special Flood Hazard Area ("100-year floodplain") or a Moderate Risk Flood Hazard Area ("500-year floodplain") according to FEMA's current flood insurance rate maps?*
- Is the property subject to any requirement under federal law to obtain and maintain flood insurance on the property? Properties in the Special Flood Hazard Area with mortgages from federally regulated or insured lenders are required to obtain and maintain flood insurance.*
- Have you ever received assistance from, or are you aware of any previous owners receiving assistance from FEMA, the U.S. Small Business Administration, or any other federal disaster flood assistance for flood damage on the property? For properties that have received flood disaster assistance, the requirement to obtain flood insurance passes down to all future owners.*
- Is there flood insurance on the property? A standard homeowner's insurance policy typically does not cover flood damage.*
- Is there a FEMA elevation certificate available for the property? If so, it must be shared with the buyer. An elevation certificate is a FEMA form, completed by a licensed surveyor or engineer, that provides critical information about the flood risk of the property and is used by flood insurance providers to determine the appropriate insurance rating for the property.*
- Have you ever filed a claim for flood damage to the property with any insurance provider? If the claim was approved, what was the amount received?*



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
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- *Has the property experienced any flood damage, water seepage, or pooled water due to a natural flood event, such as heavy rainfall, coastal storm surge, tidal inundation, or river overflow? If so, how many times?*

*Not all provisions of this law have become effective at the time of the writing of this plan.*

<b>Growth Management</b>	Yes	Chapter 13: Zoning	Local	The Township Committee
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How has or will this be integrated with the HMP and how does this reduce risk?

*The growth share requirements in the subsection of the Zoning Code apply to construction in all zones within the Township. The obligation for growth share construction or a contribution in lieu of construction shall apply regardless of whether or not the property owner or developer has obtained preliminary or final approval for the construction. The property owner is responsible for complying with the growth share requirements in this ordinance unless the property owner has been issued a building permit prior to August 15, 2006. For all other construction, the triggering mechanism for growth share responsibility shall be the issuance of a building permit for new construction.*

<b>Environmental Protection Ordinance(s)</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Flood Damage Prevention Ordinance</b>	Yes	Chapter 18: Flood Damage Prevention	Local	Township Engineer
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How has or will this be integrated with the HMP and how does this reduce risk?

*It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:*

- Protect human life and health;*
- Minimize expenditure of public money for costly flood control projects;*
- Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;*
- Minimize prolonged business interruptions;*
- Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard;*
- Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;*
- Ensure that potential buyers are notified that property is in an area of special flood hazard; and*
- Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.*

<b>Wellhead Protection</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Emergency Management Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Climate Change Ordinance</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

<b>Other</b>	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	Master Plan Reexamination Report, October 2009	Local	Land Use Board
How has or will this be integrated with the HMP and how does this reduce risk? <i>The report includes discussions and proposals regarding the region, existing land use, natural features, population, future land use, goals and objectives and township roads.</i>				
<b>Capital Improvement Plan</b>	Yes	Municipal Budget	Local	The Township Committee
How has or will this be integrated with the HMP and how does this reduce risk? <i>The municipal budget, which acts as the Township's Capital Improvement Plan, includes various potential projects which may assist in hazard mitigation efforts.</i>				
<b>Disaster Debris Management Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Floodplain Management or Watershed Plan</b>	Yes	-	Local	Engineer-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Stormwater Management Plan</b>	Yes	Stormwater Management Plan, March 2005	Local	The Township Committee
How has or will this be integrated with the HMP and how does this reduce risk? <i>The plan addresses groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating stormwater design and performance standards for new major development, defined as projects that disturb one or more acre of land. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and the loss of groundwater recharge that provides baseflow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. The plan also addresses the review and update of existing ordinances and other planning documents to allow for project designs that include low impact development techniques. The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought.</i>				
<b>Stormwater Pollution Prevention Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Open Space Plan</b>	Yes	Open Space and Recreation Plan, March 2008	Local	The Township Committee
How has or will this be integrated with the HMP and how does this reduce risk? <i>The open space program in Wantage Township seeks to maintain and enhance these agricultural and natural resources. The Township's residents voted to enact an open space trust fund in November of 2006. Monies from the Wantage Township Open Space Trust Fund will be used to purchase natural resource lands, acquire development rights on farmlands, as well as construct and maintain recreational facilities. Expenditures from the Trust Fund will supplement the approximately 11,000 acres of wildlife areas, state forests, municipal parks, and preserved farmlands that exist in Wantage Township.</i>				
<i>The Open Space and Recreation Plan offers ideas for preservation projects within greenways that are consistent with the Township's stated objectives. A timeline with one-, three-, and five-year goals that will guide the Township's preservation efforts in the near future is provided as well. The Plan also lists potential preservation partners and funding mechanisms that will assist the Township to realize its open space goals.</i>				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Urban Water Management Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Habitat Conservation Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Economic Development Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Shoreline Management Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Community Wildfire Protection Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Community Forest Management Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Transportation Plan</b> How has or will this be integrated with the HMP and how does this reduce risk? <i>The report includes discussions and proposals regarding the region, existing land use, natural features, population, future land use, goals and objectives and township roads.</i>	Yes	Master Plan Reexamination Report, October 2009	Local	Land Use Board
<b>Agriculture Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Climate Action/ Resilience/Sustainability Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Tourism Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Business/ Downtown Development Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>RESPONSE/RECOVERY PLANNING</b>				
<b>Emergency Operations Plan</b>	Yes	Township of Wantage Emergency Operations Plan, 2019	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Emergency Operations Plan aims to assess the Township's ability to respond to emergency and identifies recommendations to improve its capacity to prepare and respond to future events. The plan address both short- and long-term recovery.</i>				
<b>Continuity of Operations Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Substantial Damage Response Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Threat and Hazard Identification and Risk Assessment</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Post-Disaster Recovery Plan</b>	Yes	Post-Disaster Recovery Plan, 2014	Local	Office of Emergency Management
How has or will this be integrated with the HMP and how does this reduce risk? <i>The Post-Disaster Recovery Plan guides and identifies policies, operational strategies, and roles and responsibilities to help guide the decisions and actions of community leaders relative to long-term recovery and redevelopment following a major or catastrophic disaster.</i>				
<b>Public Health Plan</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
<b>Other</b>	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				

### 26.3.2 Development and Permitting Capability

Table 26-3 summarizes the capabilities of Wantage to oversee and track development.



Table 26-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	Yes	Building Department
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	-
Describe the level of buildout in your jurisdiction.	N/A	While there are many undeveloped areas, no large-scale development is likely, limited by location.

### 26.3.3 Administrative and Technical Capability

Table 26-4 summarizes potential staff and personnel resources available to Wantage and their current responsibilities that contribute to hazard mitigation.

Table 26-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Township's Land Use Board considers the impact on the community when development of land is proposed. The Board will make recommendations to stay in compliance with the existing Township ordinances. The Board consists of nine regular members and three alternates.
Zoning Board of Adjustment	No	The Township's Land Use Board is a joint board and exercises the powers of both a Planning Board and Zoning Board of Adjustments.
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	Wantage Township Clean Communities Program
Open Space Board/Committee	Yes	The Township has an Open Space Committee that is made up of six committee members.
Economic Development Commission/Committee	Yes	<p>The Economic Development Commission is advisory to the township committee and township clerk-administrator and shall consist of not less than five nor more than nine members. The Commission duties include, but are not limited to:</p> <ul style="list-style-type: none"> <li>The development of plans and programs to encourage the expansion and strengthening of existing business and commercial enterprises</li> <li>The development of plans and programs which will attract new business and commercial enterprises</li> </ul>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		<ul style="list-style-type: none"><li>The investigation, analysis, and submission of regular reports to the township committee and to the clerk-administrator on any obstacles to the expansion of the industrial and commercial tax base</li><li>The making of recommendations to the township committee and to the clerk-administrator regarding any ways or means by which the township can assist in meeting the needs of any developments deemed appropriate</li><li>The commission shall develop ways and means of promoting and attracting Wantage Township's economic development assets for industry, resort-tourism, transportation, governmental and other potential economic interests</li></ul>
Public Works/Highway Department	Yes	The Wantage Township Road Department is responsible for maintain Township roads.
Construction/Building/Code Enforcement Department	Yes	The Building Department is responsible for enforcement of the NJ Uniform Construction Code. Wantage Township has a shared service agreement with Hardyston Township for running the Building/Construction Department. Operationally, all business is conducted within Wantage Township; nothing is issued, nor can an inspection be taken in Hardyston. All checks must be made payable to Hardyston Township.
Emergency Management/Public Safety Department	Yes	The Office of Emergency Management plans for and responds to any emergency within the Township. It is responsible for coordinating the response of local, County, and State offices during an emergency.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	Public Safety
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other: Recreation and Parks Advisory Committee	Yes	<p>The Recreation and Parks Advisory Committee consists of five members and up to two alternates appointed by the Township Committee. The duties of the Recreation and Parks Advisory Committee includes:</p> <ul style="list-style-type: none"><li>Conduct studies of the present and future recreation needs of the Township and develop immediate and long-range plans for recommendation to the Township Committee.</li><li>Develop and recommend to the Township Committee a year-round program of recreational activities for all Township residents to be administered by the Township.</li><li>Review, plan for and advise the Township Committee regarding the development and redevelopment of open space, park land, Lake Neepaulin and bikeways</li></ul>



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		<p>which are owned, to be owned, or otherwise available for use by the Township and maintain, use, and control open space, park land, Lake Neepaulin and bikeways owned or otherwise available for use by the Township.</p> <ul style="list-style-type: none"> <li>• Coordinate its activities and cooperate with other Committees and trusted with responsibilities relating to the environment, open space, and recreation.</li> <li>• Prepare and submit quarterly to the Township Committee a summary report of activities undertaken by the Committee for the previous quarter.</li> </ul>
Other	No	-
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Land Use Board
Engineers or professionals trained in building or infrastructure construction practices	Yes	Land Use Board
Planners or engineers with an understanding of natural hazards	Yes	Land Use Board
Staff with expertise or training in benefit/cost analysis	Yes	Finance
Professionals trained in conducting damage assessments	Yes	Administration
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Emergency Management
Grant writers	No	-
<i>Consider the following:</i> Are data and maps from the HMP used to support documentation in grant applications?		
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	Township Engineer is the NFIP Floodplain Administrator

### 26.3.4 Fiscal Capability

Table 26-5 summarizes financial resources available to Wantage.



Table 26-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

### 26.3.5 Education and Outreach Capability

Table 26-6 summarizes the education and outreach resources available to Wantage.

Table 26-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Township Administrator
Personnel skilled or trained in website development	Yes	Contracted
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	Yes	Both the Township and the Township OEM use Facebook to provide weather updates and emergency alerts.
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	The Township utilizes their website to post news and announcements. The Township also uses Facebook to post weather alerts and news. Wantage Township OEM also uses Facebook to post weather alert and emergency notifications. The Township also has an electronic message board outside of municipal hall. Through County OEM, residents can use Swift911 to sign up for emergency alerts.
Natural disaster/safety programs in place for schools	No	-



Outreach Resources	Available? (Yes/No)	Comment
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	<p>Project Self-Sufficiency provides a wide range of services to Sussex County families; Project Sussex Kids is a specialized program for local families with young children.</p> <p>A community service group, the Sussex Antlers is the youth organization to Sussex Elks Lodge. Open to any student aged 12-20, the Antlers aids the community through activities such as food drives, dinners, and fundraising for our Special Children, Veterans, and Drug Awareness, as well as many others in need.</p> <p>Members of the Sussex Elks devote themselves to a number of community activities from raising the level of patriotism to funding a camp for children with disabilities.</p> <p>Patchwork Pastures Animal Sanctuary vision is to support transitioning young adults ages 18 – 28 reintegrating into society from mental health, substance use or incarceration by creating collaborative partnerships with green care companies as a base for promoting recovery, reducing recidivism, increasing employability and quality of life through our Green Care Project Initiative.</p>
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

### 26.3.6 Community Classifications

Table 26-7 summarizes classifications for community programs available to Wantage.

Table 26-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-





Program	Participating? (Yes/No)	Classification	Date Classified
New Jersey Sustainable Jersey Community	Yes	Not certified	Joined program on November 11, 2010
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = Unavailable

### 26.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 26-8 summarizes the adaptive capacity for each identified hazard of concern and the Township’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 26-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geological Hazards	Moderate
Hazardous Materials	Moderate
Hurricane	Moderate
Infestation	Moderate
Nor’easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

## 26.4 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 26-1 is responsible for maintaining this information.



## 26.4.1 NFIP Statistics

Table 26-9 summarizes the NFIP policy and claim statistics for Wantage.

Table 26-9. Wantage NFIP Summary of Policy and Claim Statistics

# Policies	9
# Claims (Losses)	10
Total Loss Payments	\$180,963.26
# Repetitive Loss Properties (NFIP definition)	0
# Repetitive Loss Properties (FMA definition)	0
# Severe Repetitive Loss Properties	0

*NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.*

*FMA Definition of Repetitive Loss: FEMA's Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.*

*Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.*

Source: FEMA Region II 2024

## 26.4.2 Flood Vulnerability Summary

Table 26-10 provides a summary of the NFIP program in Wantage.

Table 26-10. NFIP Summary

NFIP Topic	Comments
<b>Flood Vulnerability Summary</b>	
Describe areas prone to flooding in your jurisdiction.	Areas prone to flooding in the Township are limited to locations near the SFHA.
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	None
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Unknown
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown



NFIP Topic	Comments
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes
<b>NFIP Compliance</b>	
What local department is responsible for floodplain management?	Engineering
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes – various online FEMA, State, and Regional studies.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	The FPA would consider attending continuing education and/or certification trainings on floodplain management if it were offered in the County.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Engineering capability and outreach
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	If the improvement is equal to or more than 50% of the pre-improvement value.
What are the barriers to running an effective NFIP program in the community, if any?	Staffing and funding
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	December 14, 1993
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 18 – Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	August, 2011
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State. §18-5.2 of the municipal code lists specific standards for residential and non-residential construction. For residential, new construction or substantial improvements in the SFHA must have the lowest floor elevated at or above the BFE. Non-residential construction (new or substantial improvements) must be elevated to the BFE or be floodproofed.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Joint Land Use Board considers efforts to reduce flood risk when reviewing variances such as height restrictions. The Township has subdivision and site plan ordinances.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No



## 26.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 26-11 through Table 26-13.

Table 26-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
<b>2019</b>				
Total Permits	5	0	10	15
Permits within SFHA	0	0	0	0
<b>2020</b>				
Total Permits	3	0	15	18
Permits within SFHA	0	0	0	0
<b>2021</b>				
Total Permits	9	0	13	22
Permits within SFHA	0	0	0	0
<b>2022</b>				
Total Permits	11	0	16	27
Permits within SFHA	0	0	0	0
<b>2023</b>				
Total Permits	8	0	15	23
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 26-12. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
The Township indicated there has been no major development or infrastructure between 2019 and present day.					

\* Only location-specific hazard zones or vulnerabilities identified.



Table 26-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
------------------------------	---------------------	-------------------------	---	---------------------	-------------------------------------

The Township indicated there are no known or anticipated major development or infrastructure in the next five years.

## 26.6 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Wantage's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 26.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Township are shown in Figure 26-1 through Figure 26-3. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Wantage has significant exposure. The maps show the location of potential new development, where available.

Figure 26-1. Wantage Flood and Sinkhole Hazard Area Extent and Location Map

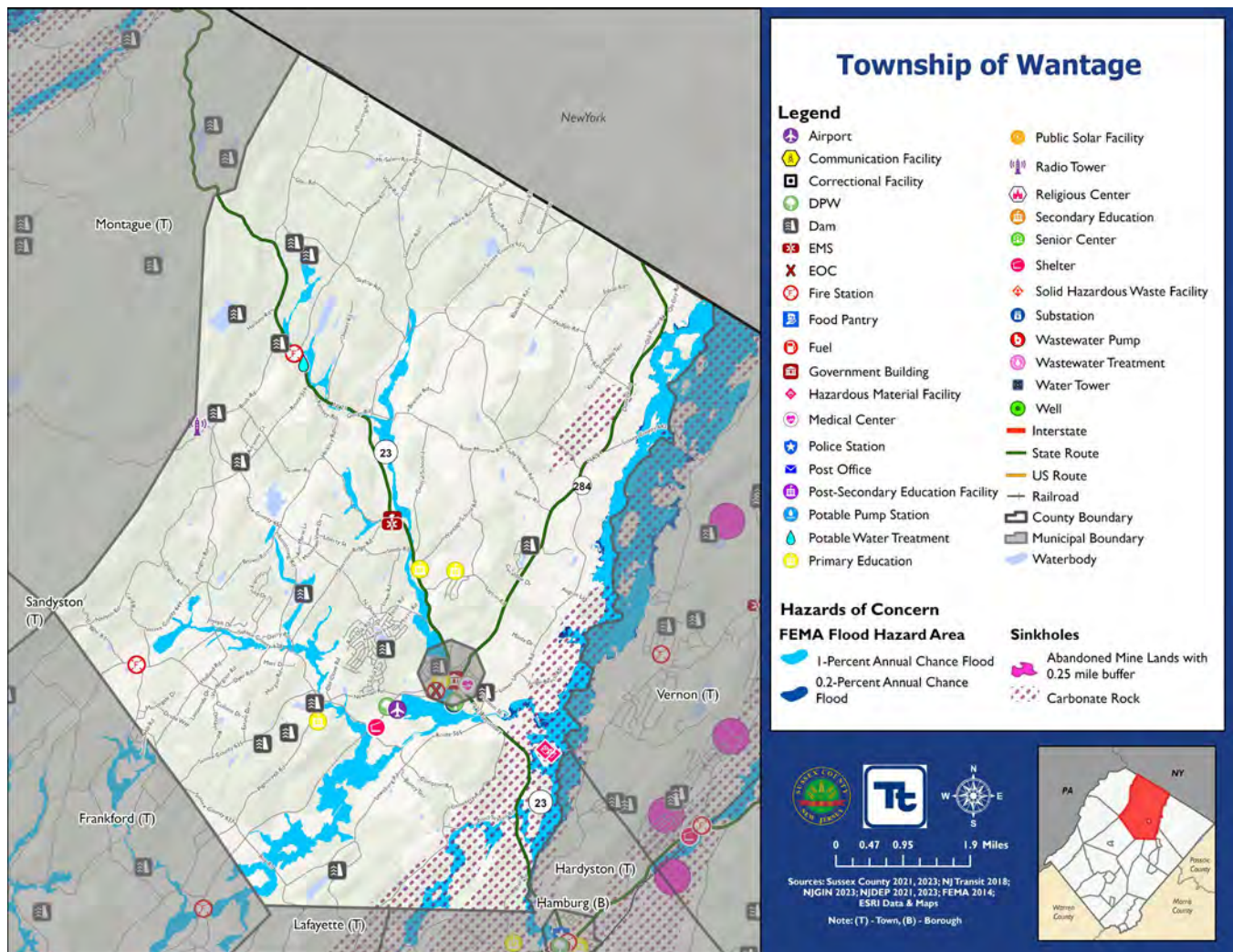




Figure 26-2. Wantage Hazardous Materials and Wildfire Hazard Area Extent and Location Map

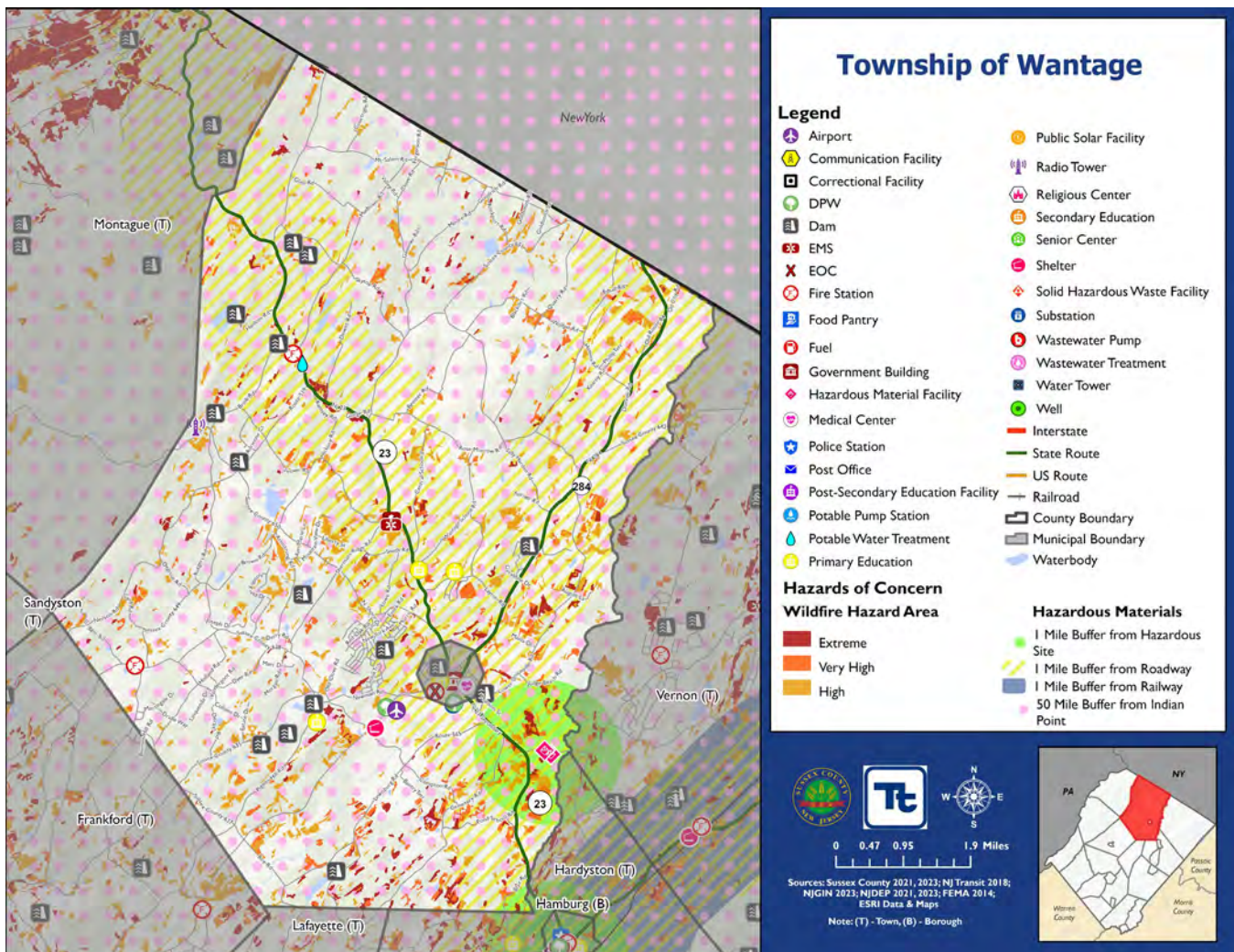
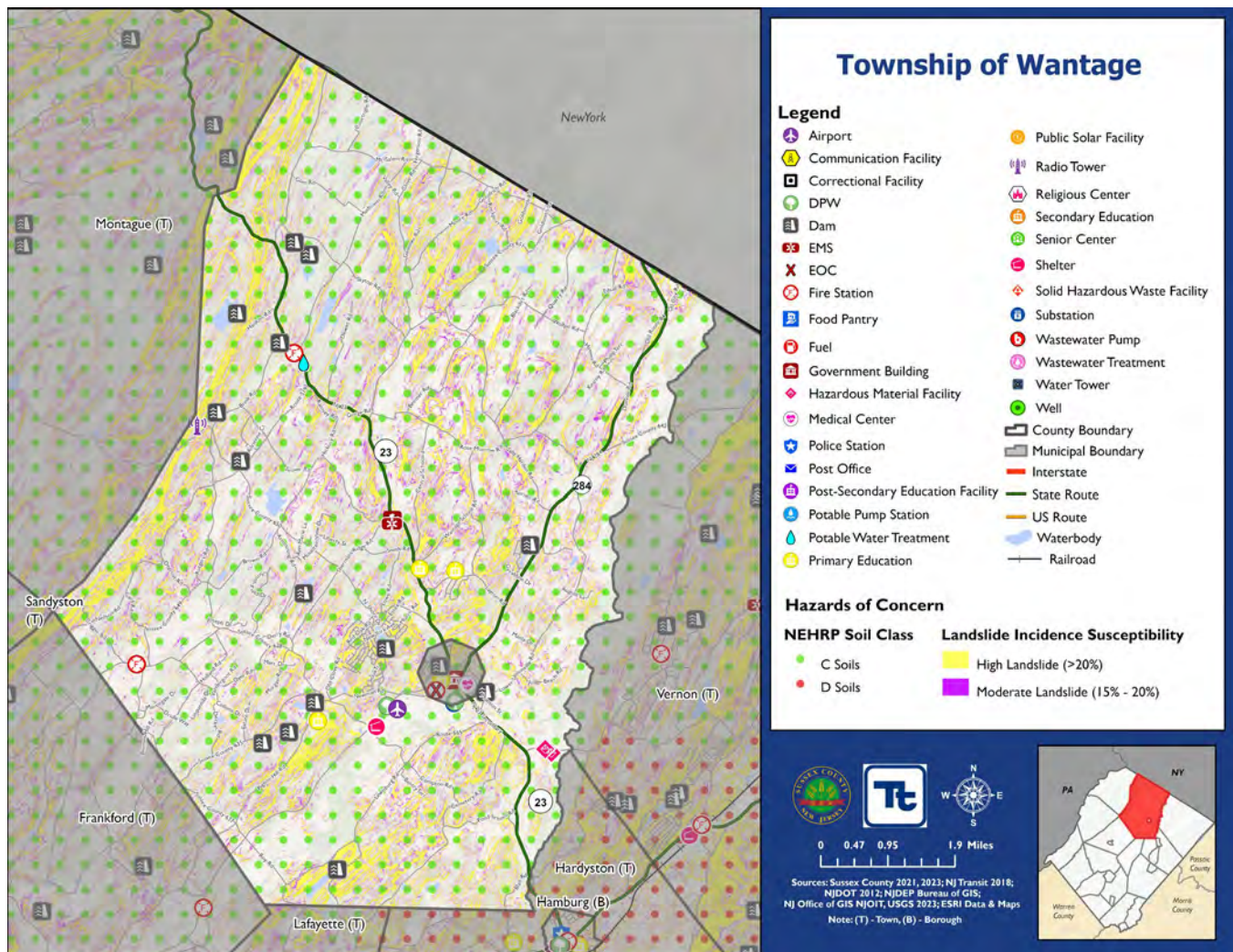




Figure 26-3. Wantage Landslide and NEHRP Soils Hazard Area Extent and Location Map





## 26.6.2 Hazard Event History

The history of natural and non-natural hazard events in Wantage is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 26-14 provides details on loss and damage in Wantage during hazard events since the last hazard mitigation plan update.

Table 26-14. Hazard Event History in Wantage

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Wantage
January 20, 2020 – May 11, 2023	Covid-19 Pandemic (EM-3451-NJ, DR-4488-NJ)	Yes	Sussex County accounted for 37,642 positive cases of COVID-19 in the State of New Jersey, and 425 of the reported deaths. A total of 277,542 vaccinations were delivered in the County to both residents and non-residents.	The Township enforced required mandates (masking and social distancing) and distributed PPE to first responders
August 4, 2020	Tropical Storm Isaias (DR-4574-NJ)	Yes	Tropical Storm Isaias brought high winds and heavy rain to Sussex County; there were numerous reports of downed trees and power lines. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	The Township incurred damages including downed trees and wires which resulted in power outages. The Township's Public Works assisted with the removal of debris.
January 31 – February 2, 2021	Severe Winter Storm (DR-4597-NJ)	Yes	Heavy precipitation developed producing areas of extreme snowfall rates of 2 to 4 inches per hour in northern New Jersey. Numerous reports of 24 to 32 inches were received from across the County.	The Township incurred damages including downed trees and wires which resulted in power outages. The Township's Public Works assisted with the removal of debris.
September 1-3, 2021	Remnants of Hurricane Ida (EM-3573-NJ, DR-4614-NJ)	Yes	The remnants of Hurricane Ida produced heavy rainfall and flash floods. Widespread flash flooding occurred in Sussex County with numerous road closures.	The Township did not incur any direct impacts from this event.

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable

## 26.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for Wantage .

### Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and



impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Wantage reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township indicated the hazard rankings were appropriate.

Table 26-15 shows Wantage's final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 26-15. Hazard Ranking

Hazard	Rank
Dam Failure	Medium
Disease Outbreak	Low
Drought	Low
Earthquake	Low
Flood	Medium
Geological Hazards	Low
Hazardous Materials	Medium
Hurricane	Medium
Infestation	Low
Nor'easter	High
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

*Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction*

## Critical Facilities

Table 26-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 26-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Annual Chance Event	0.2% Annual Chance Event		
Herzenberg Dam	Dam	Yes	Yes	2025-WantageTwp-11	-

Source: NJGIN 2023; Sussex County 2021, 2023

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Wantage:

- Lake Rutherford Dam



### 26.6.4 Identified Issues

After review of Wantage's hazard event history, hazard rankings, hazard location, and current capabilities, Wantage identified the following vulnerabilities within the community:

- The jurisdiction has identified the community surrounding Lake Neepaulin as an area with frequently downed trees due to severe storms. The Township does not have a tree maintenance program. Utility companies are responsible for the maintenance of those on or near utility lines. Private homeowners must ensure trees on private property are not threatening power availability/interruption.
- The Wantage Township Hall is located at 888 State Highway 23. It serves as the township hall, EMS, and EOC. The existing generator is in need of replacement as it is reaching its life expectancy. Without a functioning generator, the township hall will not be able to function or operate during emergency situations. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.
- During the current COVID-19 pandemic, the Township did not have an adequate supply of personal protective equipment (PPE) for municipal staff. Without proper PPE, it puts municipal staff and residents at risk to the spread of infectious diseases.
- The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township is currently not part of the Firewise program.
- The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meet New Jersey's minimum requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain.
- The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Township does not have hazard mitigation information available on its website for public education and outreach, nor does it have a public outreach strategy. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods to increase the Township's resiliency.
- The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bear it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.



- The Herzenberg Dam, a critical infrastructure, is located in the 1- and 0.2-percent flood hazard areas. The Township also has a high-hazard potential dam, the Lake Rutherford Dam, within its jurisdiction. These structures have the potential to impact those living nearby.
- Dams in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections. Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.
- Lake Rutherford Dam is a Class I High Hazard Dam that is located on Lake Rutherford. The dam is owned by the Borough of Sussex. Failure of the dam could result in inundation of forested areas and local roadways including Hankins Road and Ashworth Lane. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.

## 26.7 MITIGATION STRATEGY AND PRIORITIZATION

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This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

### 26.7.1 Past Mitigation Action Status

Table 26-17 indicates progress on the Township's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

### 26.7.2 Additional Mitigation Efforts

Wantage did not identify any additional mitigation efforts completed since the last HMP.





Table 26-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2021-Wantage-001	Backup Generator at Municipal Hall	Dam Failure, Disease Outbreak, Drought, Earthquake, Flood, Geological Hazards, Hazardous Materials, Hurricane, Infestation, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire	Township Administration, OEM	<b>Problem:</b> The Wantage Township Hall is located at 888 State Highway 23. It serves as the township hall, EMS, and EOC. The existing generator is in need of replacement as it is reaching its life expectancy. Without a functioning generator, the township hall will not be able to function or operate during emergency situations.  <b>Solution:</b> Working with the Township Engineer, identify the proper size generator for the township hall. Once identified, purchase and install a permanent generator.	1. No Progress 2. Due to financial restraints, no progress was made on this action.	1. Include 2. Keep as is 3. Not Applicable
2021-Wantage-002	PPE Stockpile	Disease Outbreak	Township OEM	<b>Problem:</b> During the current COVID-19 pandemic, the Township did not have an adequate supply of personal protective equipment (PPE) for municipal staff. Without proper PPE, it puts municipal staff and residents at risk to the	1. No Progress 2. Due to financial restraints, no progress was made on this action.	1. Include 2. Keep as is 3. Not Applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				spread of infectious diseases.  <b>Solution:</b> The Township will purchase PPE to create a stockpile for municipal staff. This will include gloves, masks, gowns, antibacterial handwash, antiviral cleaning solutions, sanitizers, and misters.		
2021-Wantage-003	Firewise Program	Wildfire	Township OEM and Fire Department	<b>Problem:</b> The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township is currently not part of the Firewise program.  <b>Solution:</b> The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a	1. No Progress 2. Due to other Township priorities, there was no progress made on this action.	1. Include 2. Keep as is 3. Not Applicable





Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The application will be completed online.		
2021-Wantage-004	Update Flood Damage Prevention Ordinance	Flood	Township Administration, Engineer	<b>Problem:</b> The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meet New Jersey's minimum requirement.  <b>Solution:</b> The Township will update its flood damage prevention ordinance to meet the New Jersey requirement of one foot of freeboard.	1. No Progress 2. Due to other Township priorities, there was no progress made on this action.	1. Include 2. Keep as is 3. Not Applicable
2021-Wantage-005	Develop Debris Management Plan	Dam Failure, Drought, Earthquake, Flood, Geological Hazards, Hazardous Materials, Hurricane,	OEM, Public Works	<b>Problem:</b> The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified	1. No Progress 2. Due to other Township priorities, there was no progress made on this action.	1. Include 2. Keep as is 3. Not Applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		Infestation, Nor'easter, Severe Weather, Severe Winter Weather, Wildfire		locations for debris storage.  <b>Solution:</b> The Township will develop a debris management plan that will assist the municipality when they need to facilitate response and recovery after a debris-causing incident. The plan will provide direction to facilitate and coordinate the management of debris following a disaster.		



### 26.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Wantage participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Wantage would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Township priorities.

Table 26-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 26-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 26-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X		X	X	X	X		X	X
Disease Outbreak	X	X		X			X			X
Drought		X		X			X			X
Earthquake	X	X		X	X		X			X
Flood	X	X		X	X		X			X
Geological Hazards	X	X		X	X		X			X
Hazardous Materials	X	X		X			X			X
Hurricane	X	X	X	X	X		X	X		X
Infestation				X			X			
Nor'easter	X	X	X	X	X		X	X		X
Severe Weather	X	X	X	X	X		X	X		X
Severe Winter Weather	X	X	X	X	X		X	X		X
Wildfire	X	X		X	X		X			X

**Local Plans and Regulations (LPR)**—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

**Structure and Infrastructure Project (SIP)**—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

**Natural Systems Protection (NSP)**—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

**Education and Awareness Programs (EAP)**—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

**Preventative Measures (PR)**—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

**Property Protection (PP)**—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

**Public Information (PI)**—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

**Natural Resource Protection (NR)**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

**Structural Flood Control Projects (SP)**—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

**Emergency Services (ES)**—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 26-19. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria															High / Medium / Low
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	
2025-WantageTwp-01	Tree Maintenance	0	1	1	1	1	1	1	1	1	1	0	1	0	0	10	Medium
2025-WantageTwp-02	Backup Generator at Municipal Hall	1	1	0	1	1	0	0	1	1	1	0	1	1	0	9	Medium
2025-WantageTwp-03	Personal Protective Equipment Stockpile	1	0	1	1	1	0	0	1	1	1	1	1	1	0	10	Medium
2025-WantageTwp-04	Firewise Program	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-WantageTwp-05	Code Coordinated Ordinance	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-WantageTwp-06	Disaster Debris Management Plan	0	1	1	1	1	1	1	0	1	1	1	1	0	1	11	High
2025-WantageTwp-07	Public Outreach Strategy	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2025-WantageTwp-08	Flood Mitigation Interest	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
2025-WantageTwp-09	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-WantageTwp-10	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-WantageTwp-11	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-WantageTwp-12	NJDEP Dam Repair	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2025-WantageTwp-13	Lake Rutherford Dam Rehab	1	1	1	1	0	0	1	1	1	0	1	1	1	1	11	High

Note: Volume I, Section 21 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



## Action 2025-WantageTwp-01. Tree Maintenance

<b>Lead Agency:</b>	Building Department		
<b>Supporting Agencies:</b>	Utility Companies, Property Owners		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input type="checkbox"/> Earthquake  <input type="checkbox"/> Flood  <input type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	The jurisdiction has identified the community surrounding Lake Neepaulin as an area with frequently downed trees due to severe storms. The Township does not have a tree maintenance program. Utility companies are responsible for the maintenance of those on or near utility lines. Private homeowners must ensure trees on private property are not threatening power availability/interruption.		
<b>Description of the Solution:</b>	Implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption in conjunction with property owners and utility companies.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	4 years		
<b>Goals Met:</b>	1, 2, 5, 7		
<b>Benefits:</b>	This action will result in the reduction of risk surrounding power outages by minimizing potential impacts from trees on utility lines.		
<b>Impact on Socially Vulnerable Populations:</b>	Some socially vulnerable population rely on power utilities for everyday care. If power outages are caused by a lack of tree maintenance, lives could potentially be at risk.		
<b>Impact on Future Development:</b>	This action assists in the protection of future development from impacts caused by tree collapses or branch falls as a result of severe weather, severe winter weather, hurricanes, and nor'easters.		
<b>Impact on Critical Facilities/Lifelines:</b>	Utility lines provide power to residencies, private businesses, government entities, and various providers. Not maintaining trees, tree limbs, or tree branches may impact the availability of power during severe weather and severe winter weather events.		
<b>Impact on Capabilities:</b>	The creation of a tree maintenance program would be a new capability for the Township.		
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to trees or tree limbs/branches falling or impacting utility lines and property.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input checked="" type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI) <input checked="" type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Municipal-owned trees will be maintained	
	Do not contact utility companies	Trees along utility lines may impact power during severe weather and severe winter weather events	
	Do not contact property owners	Trees on private residencies may impact power during severe weather and severe winter weather events	



## Action 2025-WantageTwp-02. Backup Generator at Municipal Hall

<b>Lead Agency:</b>	Township Engineer		
<b>Supporting Agencies:</b>	Township Administration, Wantage OEM		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials	<input checked="" type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire	
<b>Description of the Problem:</b>	The Wantage Township Hall is located at 888 State Highway 23. It serves as the township hall, EMS, and EOC. The existing generator is in need of replacement as it is reaching its life expectancy. Without a functioning generator, the township hall will not be able to function or operate during emergency situations. High winds associated with hurricanes, nor'easters, severe weather, and severe winter weather are known to cause power outages, which would impact the continuity of operations at both critical facilities.		
<b>Description of the Solution:</b>	Working with the Township Engineer, identify the proper size generator for the municipal hall. Once identified, purchase and install a permanent generator and necessary electrical components to supply backup power.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 5, 6, 7		
<b>Benefits:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Socially Vulnerable Populations:</b>	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
<b>Impact on Future Development:</b>	This action results in protection of a critical facility that could support future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
<b>Impact on Capabilities:</b>	This action ensures continuity of operations to maintain capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	





## Action 2025-WantageTwp-03. Personal Protective Equipment Stockpile

<b>Lead Agency:</b>	Township OEM		
<b>Supporting Agencies:</b>	Township Administration		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input checked="" type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	During the current COVID-19 pandemic, the Township did not have an adequate supply of personal protective equipment (PPE) for municipal staff. Without proper PPE, it puts municipal staff and residents at risk to the spread of infectious diseases.		
<b>Description of the Solution:</b>	The Township will purchase PPE to create a stockpile for municipal staff. This will include gloves, masks, gowns, antibacterial handwash, antiviral cleaning solutions, sanitizers, and misters.		
<b>Estimated Cost:</b>	Medium		
<b>Potential Funding Sources:</b>	NJDCA, Township Budget, FEMA Assistance to Firefighters Grant		
<b>Implementation Timeline:</b>	Within 5 years, then ongoing maintenance		
<b>Goals Met:</b>	1, 5, 6		
<b>Benefits:</b>	Increased protection from diseases, and decreased risk of disease spread.		
<b>Impact on Socially Vulnerable Populations:</b>	This action will protect first responders and medical personnel during disease outbreak events. Socially vulnerable populations are often impacted heavily during disease outbreak events.		
<b>Impact on Future Development:</b>	Not Applicable		
<b>Impact on Critical Facilities/Lifelines:</b>	This action provides PPE for use in health facilities and for emergency responders.		
<b>Impact on Capabilities:</b>	This action provides PPE to safely maintain health and emergency capabilities.		
<b>Climate Change Considerations:</b>	Changes in the environment may create a more livable habitat for vectors carrying disease as suggested by the Centers for Disease Control and Prevention. Localized changes in climate and human interaction may also be a factor in the spread of disease.		
<b>Mitigation Category</b>	<div><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>		
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input checked="" type="checkbox"/> Emergency Services (ES)</div>		
<b>Priority</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Shut down facilities during disease outbreak events.	Loss of critical health and emergency services	
	Rely on state or federally supplied PPE	Supplies may not be available or have slow distribution	



## Action 2025-WantageTwp-04. Firewise Program

<b>Lead Agency:</b>	Fire Department		
<b>Supporting Agencies:</b>	Wantage OEM		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input checked="" type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township is currently not part of the Firewise program.		
<b>Description of the Solution:</b>	The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The application will be completed online.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal Budget		
<b>Implementation Timeline:</b>	3 years		
<b>Goals Met:</b>	1, 2, 3, 4, 5		
<b>Benefits:</b>	The national Firewise USA recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level.		
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township may be located within very high and high fuel risk areas for wildfires. Participation in the Firewise Program will assist in the Township's efforts to educate populations on how to increase the ignition resistance of their home and property.		
<b>Impact on Future Development:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made. This assessment may identify areas which the Township would like to restrict future development.		
<b>Impact on Critical Facilities/Lifelines:</b>	Participation in this program requires a community wildfire assessment to be completed, which should be a community-wide view that identifies areas of successful wildfire risk reduction and areas where improvements could be made, which could include relocating various critical facilities or lifelines.		
<b>Impact on Capabilities:</b>	This action will increase wildfire risk reduction and response capabilities for the Township.		
<b>Climate Change Considerations:</b>	Higher temperatures are expected to increase the amount of moisture that evaporates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, increases the likelihood of wildfires.		
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</div>		
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input checked="" type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	The Township does not participate in the Firewise Program	
	Complete half of the program requirements	The Township would not be eligible to participate in the Firewise Program	



	Participate in the program, but do not utilize resources	The Township would miss opportunities to strengthen communication and safety skills
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## Action 2025-WantageTwp-05. Code Coordinated Ordinance

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Building Department, Township Administration, NFIP State Coordinator, FEMA Regional Office		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	<p>The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meet New Jersey's minimum requirement. A recent audit of New Jersey's model ordinances by FEMA for conformance with NFIP, resulted in a review of existing local flood damage prevention ordinances. Based upon FEMA's review, specific language related to NFIP regulations was not consistent. Additionally, it was determined that better coordination was needed between the three sets of regulations that regulate development and construction in the floodplain. These regulations are: the NFIP implemented by local floodplain administrators, the New Jersey Flood Hazard Area Control Act (FHACA) implemented at the State level by the NJDEP, and the Uniform Construction Code (UCC) implemented by the local Construction Official. NJDEP used this feedback to develop a model Code Coordinated Ordinance and continues to work with municipalities to update flood damage prevention ordinances to the Code Coordinated Ordinance.</p>		
<b>Description of the Solution:</b>	<p>After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the municipality will update and adopt the Code Coordinated Ordinance.</p>		
<b>Estimated Cost:</b>	Staff time		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>		
<b>Impact on Socially Vulnerable Populations:</b>	<p>The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.</p>		
<b>Impact on Future Development:</b>	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>		
<b>Impact on Critical Facilities/Lifelines:</b>	<p>Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the same requirements as general building construction that are set forth in the ordinance.</p>		
<b>Impact on Capabilities:</b>	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>		
<b>Climate Change Considerations:</b>	<p>The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard have been incorporated in these new model ordinances.</p>		
<b>Mitigation Category</b>	<div><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</div> <div><input type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP)</div> <div><input type="checkbox"/> Education and Awareness Programs (EAP)</div>		
<b>CRS Category</b>	<div><input checked="" type="checkbox"/> Preventative Measures (PR)</div> <div><input type="checkbox"/> Property Protection (PP)</div> <div><input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR)</div> <div><input type="checkbox"/> Structural Flood Control Projects (SP)</div> <div><input type="checkbox"/> Emergency Services (ES)</div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<div><b>Action</b></div> <div>No Action</div>	<div><b>Evaluation</b></div> <div>Current problem exists</div>	





	Modify existing flood damage prevention ordinance	Time intensive
	Leave NFIP	Residents lose flood insurance coverage



## Action 2025-WantageTwp-06. Disaster Debris Management Plan

<b>Lead Agency:</b>	Wantage OEM																
<b>Supporting Agencies:</b>	Road Department, Building Department, Township Administration																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input checked="" type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input checked="" type="checkbox"/> Nor'easter</td></tr><tr><td><input checked="" type="checkbox"/> Earthquake</td><td><input checked="" type="checkbox"/> Severe Weather</td></tr><tr><td><input checked="" type="checkbox"/> Flood</td><td><input checked="" type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input checked="" type="checkbox"/> Geological Hazards</td><td><input checked="" type="checkbox"/> Wildfire</td></tr><tr><td><input checked="" type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter	<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather	<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather	<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input checked="" type="checkbox"/> Hurricane																
<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation																
<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Nor'easter																
<input checked="" type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Weather																
<input checked="" type="checkbox"/> Flood	<input checked="" type="checkbox"/> Severe Winter Weather																
<input checked="" type="checkbox"/> Geological Hazards	<input checked="" type="checkbox"/> Wildfire																
<input checked="" type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.																
<b>Description of the Solution:</b>	The municipality will develop a disaster debris management plan. This plan will establish procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner. The plan will identify responsibilities for execution of the plan. The plan will align with permitted temporary collection areas.																
<b>Estimated Cost:</b>	Staff time																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	5																
<b>Benefits:</b>	The action will result in increased quicker and more efficient cleanup after disaster events.																
<b>Impact on Socially Vulnerable Populations:</b>	Not Applicable																
<b>Impact on Future Development:</b>	Not Applicable																
<b>Impact on Critical Facilities/Lifelines:</b>	Not Applicable																
<b>Impact on Capabilities:</b>	The action will result in increased post disaster capabilities.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
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<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
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<input type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem remains</td></tr><tr><td>Rely on federal cleanup</td><td>These services may or may not be available</td></tr><tr><td>Rely on state cleanup</td><td>These services may or may not be available</td></tr></table>	Action	Evaluation	No Action	Current problem remains	Rely on federal cleanup	These services may or may not be available	Rely on state cleanup	These services may or may not be available								
Action	Evaluation																
No Action	Current problem remains																
Rely on federal cleanup	These services may or may not be available																
Rely on state cleanup	These services may or may not be available																



## Action 2025-WantageTwp-07. Public Outreach Strategy

<b>Lead Agency:</b>	Wantage Township OEM										
<b>Supporting Agencies:</b>	Township Administration, Sussex County										
<b>Hazard(s) of Concern:</b>	<div><div><input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Geological Hazards <input checked="" type="checkbox"/> Hazardous Materials</div><div><input checked="" type="checkbox"/> Hurricane <input checked="" type="checkbox"/> Infestation <input checked="" type="checkbox"/> Nor'easter <input checked="" type="checkbox"/> Severe Weather <input checked="" type="checkbox"/> Severe Winter Weather <input checked="" type="checkbox"/> Wildfire</div></div>										
<b>Description of the Problem:</b>	The Township does not have hazard mitigation information available on its website for public education and outreach, nor does it have a public outreach strategy. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods to increase the Township's resiliency.										
<b>Description of the Solution:</b>	Create outreach materials, or utilize those from Sussex County, on hazard risks for the Township's population. Methods of distribution may include Township events, the Township newsletters, social media, the Township website, and having the materials on display for the public at Township libraries and offices. Consider hiring staff to work directly with educating socially vulnerable populations on hazard risks.										
<b>Estimated Cost:</b>	Low										
<b>Potential Funding Sources:</b>	Township Budget, HMGP										
<b>Implementation Timeline:</b>	Within 3 years										
<b>Goals Met:</b>	1, 3, 7										
<b>Benefits:</b>	This action will create opportunities to educate and inform populations on hazard risks. Furthermore, this action encourages the Township to identify and work with socially vulnerable populations.										
<b>Impact on Socially Vulnerable Populations:</b>	Socially vulnerable populations in the Township will become educated on hazards risks. The Township will identify an individual to identify and work with these populations to ensure the most up to date information is being shared.										
<b>Impact on Future Development:</b>	Not applicable										
<b>Impact on Critical Facilities/Lifelines:</b>	Educating populations on hazard risk and how to mitigate the risks can decrease the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.										
<b>Impact on Capabilities:</b>	This action would build upon the Township's already existing public education and outreach program.										
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.										
<b>Mitigation Category</b>	<div><div><input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)</div><div><input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)</div></div>										
<b>CRS Category</b>	<div><div><input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)</div><div><input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)</div></div>										
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low								
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Current methods remain the only ones used</td></tr><tr><td>Rely on state or federal resources</td><td>Resources may be generalized and not specific to the risks in the Township</td></tr><tr><td>Use only a few methods for distribution</td><td>Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance</td></tr></table>	Action	Evaluation	No action	Current methods remain the only ones used	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance		
Action	Evaluation										
No action	Current methods remain the only ones used										
Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Township										
Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance										





## Action 2025-WantageTwp-08. Flood Mitigation Interest

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Planning Board, Zoning Board, Township Administration		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	The Township does not have a formalized list of damaged properties or property owners which may be interested in flood mitigation measures, such as elevation or acquisition. Maintaining these lists can assist the Township in identifying and prioritizing properties to mitigate.		
<b>Description of the Solution:</b>	The Floodplain Administration will develop a list for inventorying system, or properties damaged by flood events and property owners who are interested in flood mitigation measures, such as elevation or acquisition.		
<b>Estimated Cost:</b>	Staff time, Low		
<b>Potential Funding Sources:</b>	Township Budget		
<b>Implementation Timeline:</b>	Within 2 years		
<b>Goals Met:</b>	1, 2, 5		
<b>Benefits:</b>	Keeping a list of damaged properties and property owners interested in flood mitigation efforts may lead to the elimination of flood damage to homes and residences, which creating an open space for the municipality and increasing flood storage.		
<b>Impact on Socially Vulnerable Populations:</b>	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. Removing homes from the floodplain immediately removes the risk to life and property.		
<b>Impact on Future Development:</b>	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
<b>Impact on Critical Facilities/Lifelines:</b>	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
<b>Impact on Capabilities:</b>	This action will create a new Township capability, while enhancing its current NFIP capabilities.		
<b>Climate Change Considerations:</b>	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Areas experiencing flooding conditions may increase. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.		
<b>Mitigation Category</b>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No action		Current problem remains
	Only share opportunities when notified of grant funding		May not be enough time to garner interest or write application
	Wait for information from the State on flood-damaged properties		May be a delay in notice



## Action 2025-WantageTwp-09. Substantial Damage Management Plan

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Wantage Township OEM, Building Department		
<b>Hazard(s) of Concern:</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Dam Failure  <input type="checkbox"/> Disease Outbreak  <input type="checkbox"/> Drought  <input checked="" type="checkbox"/> Earthquake  <input checked="" type="checkbox"/> Flood  <input checked="" type="checkbox"/> Geological Hazards  <input type="checkbox"/> Hazardous Materials </div> <div> <input checked="" type="checkbox"/> Hurricane  <input type="checkbox"/> Infestation  <input checked="" type="checkbox"/> Nor'easter  <input checked="" type="checkbox"/> Severe Weather  <input checked="" type="checkbox"/> Severe Winter Weather  <input checked="" type="checkbox"/> Wildfire </div> </div>		
<b>Description of the Problem:</b>	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> <li>Determine where the damage occurred within the community and if the damaged structures are in an SFHA.</li> <li>Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration.</li> <li>Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value.</li> <li>Require permits for floodplain development.</li> </ul> <p>The municipality does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
<b>Description of the Solution:</b>	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (<a href="https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf">https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf</a>). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Municipal budget		
<b>Implementation Timeline:</b>	Within 5 years to develop the plan; ongoing to maintain and update the plan		
<b>Goals Met:</b>	2, 5		
<b>Benefits:</b>	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.		
<b>Impact on Socially Vulnerable Populations:</b>	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.		
<b>Impact on Future Development:</b>	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
<b>Impact on Critical Facilities/Lifelines:</b>	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
<b>Impact on Capabilities:</b>	This action improves disaster recovery capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
<b>Mitigation Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Local Plans and Regulations (LPR)  <input type="checkbox"/> Structure and Infrastructure Project (SIP) </div> <div> <input type="checkbox"/> Natural Systems Protection (NSP)  <input type="checkbox"/> Education and Awareness Programs (EAP) </div> </div>		
<b>CRS Category</b>	<div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> Preventative Measures (PR)  <input type="checkbox"/> Property Protection (PP)  <input type="checkbox"/> Public Information (PI) </div> <div> <input type="checkbox"/> Natural Resource Protection (NR)  <input type="checkbox"/> Structural Flood Control Projects (SP)  <input checked="" type="checkbox"/> Emergency Services (ES) </div> </div>		
<b>Priority</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	



	No Action	Current problem remains
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements



## Action 2025-WantageTwp-10. NFIP Training

<b>Lead Agency:</b>	Floodplain Administrator		
<b>Supporting Agencies:</b>	Engineering, Building Department, Township Administration		
<b>Hazard(s) of Concern:</b>	<div><input type="checkbox"/> Dam Failure</div> <div><input type="checkbox"/> Disease Outbreak</div> <div><input type="checkbox"/> Drought</div> <div><input type="checkbox"/> Earthquake</div> <div><input checked="" type="checkbox"/> Flood</div> <div><input type="checkbox"/> Geological Hazards</div> <div><input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane</div> <div><input type="checkbox"/> Infestation</div> <div><input type="checkbox"/> Nor'easter</div> <div><input type="checkbox"/> Severe Weather</div> <div><input type="checkbox"/> Severe Winter Weather</div> <div><input type="checkbox"/> Wildfire</div>		
<b>Description of the Problem:</b>	The Township does not have any certified floodplain managers (CFM) on staff. Becoming a CFM increases the depth of understanding when dealing with FEMA floodplains. The certifications ensures those that bare it understand the regulatory requirements and procedures needed to make floodplain management work effectively and efficiently at the community level.		
<b>Description of the Solution:</b>	Provide training and/or certification for Township staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
<b>Estimated Cost:</b>	Low		
<b>Potential Funding Sources:</b>	Village Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 3, 5		
<b>Benefits:</b>	This action will increase the NFIP capabilities of the Township and assure the Township's NFIP program has enough staff to accomplish its goals and reach NFIP compliance.		
<b>Impact on Socially Vulnerable Populations:</b>	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.		
<b>Impact on Future Development:</b>	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
<b>Impact on Critical Facilities/Lifelines:</b>	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
<b>Impact on Capabilities:</b>	This action will enhance the Township's current NFIP capabilities.		
<b>Climate Change Considerations:</b>	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)		<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)		<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem remains	
	Hire outside contractors for floodplain administration	Costly	
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role	



## Action 2025-WantageTwp-11. Dam Owner Partnership

<b>Lead Agency:</b>	Township OEM																
<b>Supporting Agencies:</b>	NJDEP, Dam Owners																
<b>Hazard(s) of Concern:</b>	<table><tr><td><input checked="" type="checkbox"/> Dam Failure</td><td><input type="checkbox"/> Hurricane</td></tr><tr><td><input type="checkbox"/> Disease Outbreak</td><td><input type="checkbox"/> Infestation</td></tr><tr><td><input type="checkbox"/> Drought</td><td><input type="checkbox"/> Nor'easter</td></tr><tr><td><input type="checkbox"/> Earthquake</td><td><input type="checkbox"/> Severe Weather</td></tr><tr><td><input type="checkbox"/> Flood</td><td><input type="checkbox"/> Severe Winter Weather</td></tr><tr><td><input type="checkbox"/> Geological Hazards</td><td><input type="checkbox"/> Wildfire</td></tr><tr><td><input type="checkbox"/> Hazardous Materials</td><td></td></tr></table>			<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation	<input type="checkbox"/> Drought	<input type="checkbox"/> Nor'easter	<input type="checkbox"/> Earthquake	<input type="checkbox"/> Severe Weather	<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather	<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Hazardous Materials	
<input checked="" type="checkbox"/> Dam Failure	<input type="checkbox"/> Hurricane																
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<input type="checkbox"/> Flood	<input type="checkbox"/> Severe Winter Weather																
<input type="checkbox"/> Geological Hazards	<input type="checkbox"/> Wildfire																
<input type="checkbox"/> Hazardous Materials																	
<b>Description of the Problem:</b>	The Herzenberg Dam, a critical infrastructure, is located in the 1- and 0.2-percent flood hazard areas. The Township also has a high-hazard potential dam, the Lake Rutherford Dam, within its jurisdiction. These structures have the potential to impact those living nearby.																
<b>Description of the Solution:</b>	The Township will work with the owners of the dams to ensure inspections and safety procedures are up to date. EAPs will be collected by Township OEM and shared with the County OEM.																
<b>Estimated Cost:</b>	Low																
<b>Potential Funding Sources:</b>	Municipal budget																
<b>Implementation Timeline:</b>	Within 5 years																
<b>Goals Met:</b>	1, 2, 3, 5, 7																
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.																
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
<b>Impact on Future Development:</b>	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.																
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.																
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.																
<b>Mitigation Category</b>	<table><tr><td><input checked="" type="checkbox"/> Local Plans and Regulations (LPR)</td><td><input type="checkbox"/> Natural Systems Protection (NSP)</td></tr><tr><td><input type="checkbox"/> Structure and Infrastructure Project (SIP)</td><td><input type="checkbox"/> Education and Awareness Programs (EAP)</td></tr></table>			<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)										
<input checked="" type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)																
<input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)																
<b>CRS Category</b>	<table><tr><td><input type="checkbox"/> Preventative Measures (PR)</td><td><input type="checkbox"/> Natural Resource Protection (NR)</td></tr><tr><td><input checked="" type="checkbox"/> Property Protection (PP)</td><td><input type="checkbox"/> Structural Flood Control Projects (SP)</td></tr><tr><td><input type="checkbox"/> Public Information (PI)</td><td><input checked="" type="checkbox"/> Emergency Services (ES)</td></tr></table>			<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)	<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)								
<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)																
<input checked="" type="checkbox"/> Property Protection (PP)	<input type="checkbox"/> Structural Flood Control Projects (SP)																
<input type="checkbox"/> Public Information (PI)	<input checked="" type="checkbox"/> Emergency Services (ES)																
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Township will be unaware of any safety concerns for the dam or its condition</td></tr><tr><td>Utilize information from NJDEP</td><td>Owners may not be required to submit a safety plan to the State</td></tr><tr><td>Utilize information from the National Inventory of Dams</td><td>Not all dams are listed on the inventory</td></tr></table>	Action	Evaluation	No Action	Township will be unaware of any safety concerns for the dam or its condition	Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory								
Action	Evaluation																
No Action	Township will be unaware of any safety concerns for the dam or its condition																
Utilize information from NJDEP	Owners may not be required to submit a safety plan to the State																
Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory																



## Action 2025-WantageTwp-12. NJDEP Dam Repair

<b>Lead Agency:</b>	Engineer		
<b>Supporting Agencies:</b>	Dam manager, NJDEP Bureau of Dam Safety, County Engineer		
<b>Hazard(s) of Concern:</b>	<input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire		
<b>Description of the Problem:</b>	<p>The following dams are located in the municipality and have been found to have either a poor or unsatisfactory safety rating based on their most recent inspections:</p> <ul style="list-style-type: none"> <li>• Colesville Reservoir Dam</li> </ul> <p>Dams with poor or unsatisfactory safety ratings have deficiencies that could potentially make dam failure more likely to occur or the consequences of dam failure more significant.</p>		
<b>Description of the Solution:</b>	The municipal engineer will work with dam managers, the NJDEP Bureau of Dam Safety, and the County Engineer to review the most recent inspections of dams in the municipality that have resulted in a poor or unsatisfactory safety rating, identify the deficiencies, determine the necessary repairs and improvements necessary to address the deficiencies, identify available funding sources for the identified repairs/improvements, and implement the cost-effective repairs/improvements.		
<b>Estimated Cost:</b>	Low for initial assessment of options, TBD for total cost based on mitigation actions selected		
<b>Potential Funding Sources:</b>	NJDEP, Annual Budget		
<b>Implementation Timeline:</b>	Within 5 years		
<b>Goals Met:</b>	1, 2, 4		
<b>Benefits:</b>	Dam failure will be avoided, which will reduce the risk of harm to people and property downstream. Certain safety requirements will be met that can allow for funding to be received for further mitigation projects.		
<b>Impact on Socially Vulnerable Populations:</b>	The most vulnerable populations may live directly downstream of the dam and lack the ability to receive notifications of dam failure or evacuate when notified. Preventing dam failure allows those communities to remain intact and reduces the risk of loss of life and property in those areas.		
<b>Impact on Future Development:</b>	Future development downstream of dams will also be protected from dam failure.		
<b>Impact on Critical Facilities/Lifelines:</b>	Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.		
<b>Impact on Capabilities:</b>	N/A		
<b>Climate Change Considerations:</b>	Climate change is resulting in an increase to annual precipitation. Much of this increase is in the form of heavy rainfall events. Consideration should be taken for increases in frequency and severity of rainfall events to ensure that the dam is designed to withstand these increases.		
<b>Mitigation Category</b>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP) <input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)		
<b>CRS Category</b>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI) <input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)		
<b>Priority</b>	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>		<b>Evaluation</b>
	No Action		Risk of dam failure remains or increases over time



	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access
	Remove all dams	Without proper analysis, dam removal may increase flooding risk





## Action 2025-WantageTwp-13. Lake Rutherford Dam Rehab

<b>Lead Agency:</b>	Borough of Sussex								
<b>Supporting Agencies:</b>	County Engineer, County OEM, NJDEP, Municipal Engineer								
<b>Hazard(s) of Concern:</b>	<div><input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Flood <input type="checkbox"/> Geological Hazards <input type="checkbox"/> Hazardous Materials</div> <div><input type="checkbox"/> Hurricane <input type="checkbox"/> Infestation <input type="checkbox"/> Nor'easter <input type="checkbox"/> Severe Weather <input type="checkbox"/> Severe Winter Weather <input type="checkbox"/> Wildfire</div>								
<b>Description of the Problem:</b>	Lake Rutherford Dam is a Class I High Hazard Dam that is located on Lake Rutherford. The dam is owned by the Borough of Sussex. Failure of the dam could result in inundation of forested areas and local roadways including Hankins Road and Ashworth Lane. Although the dam was last inspected in 2023 and found to be in satisfactory condition, the risk of dam failure warrants an engineering evaluation to determine if retrofits of the dam would result in safer conditions.								
<b>Description of the Solution:</b>	The Municipal Engineer will work with the Borough of Sussex to complete an engineering study of Lake Rutherford Dam. The Township will also request information and input from its Public Works/Highway department and the County regarding impacted roadways. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Township and the Borough of Sussex will pursue funding support, permit approval from NJDEP, and implement the cost-effective measures.								
<b>Estimated Cost:</b>	High								
<b>Potential Funding Sources:</b>	FEMA BRIC, HHPD								
<b>Implementation Timeline:</b>	Within 5 years								
<b>Goals Met:</b>	1, 2, 8								
<b>Benefits:</b>	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies.								
<b>Impact on Socially Vulnerable Populations:</b>	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.								
<b>Impact on Future Development:</b>	Future development located in or near the dam inundation area will be further protected from a dam failure event.								
<b>Impact on Critical Facilities/Lifelines:</b>	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.								
<b>Impact on Capabilities:</b>	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.								
<b>Climate Change Considerations:</b>	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event due to projected increases in precipitation. This action will increase the capabilities to respond to these events.								
<b>Mitigation Category</b>	<div><input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)</div> <div><input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)</div>								
<b>CRS Category</b>	<div><input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)</div> <div><input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)</div>								
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low						
<b>Alternatives:</b>	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No Action</td><td>Current problem continues</td></tr><tr><td>Decommission Dam</td><td>High cost, flood risk for nearby infrastructure increased, loss of Lake Rutherford as a water supply resource.</td></tr></table>	Action	Evaluation	No Action	Current problem continues	Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Rutherford as a water supply resource.		
Action	Evaluation								
No Action	Current problem continues								
Decommission Dam	High cost, flood risk for nearby infrastructure increased, loss of Lake Rutherford as a water supply resource.								



	Elevate nearby structures	Very high cost and likely not feasible for commercial properties. Will not reduce potential for dam failure due to poor dam conditions
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