



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
National Flood Insurance Program Floodplain Administrator	
Name/Title: Joseph Butto, Construction Official Address: 149 Wheatsworth Road, Suite A, Hardyston, NJ 07419 Phone Number: (973) 823-7020 Email: jbutto@hardyston.com	
Additional Contributors	
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
CODES, ORDINANCES, & REGULATIONS				
Building Code	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.

Zoning/Land Use Code	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.

Subdivision Code	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
Site Plan Code	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.

Stormwater Management Code	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).

Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
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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
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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.

Growth Management	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.

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

Flood Damage Prevention Ordinance	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"> 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 and 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. 				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	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>				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	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>				
Capital Improvement Plan	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>				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	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>				
Stormwater Management Plan	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>				
Stormwater Pollution Prevention Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Open Space Plan	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>				
Urban Water Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Habitat Conservation Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Economic Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Shoreline Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Wildfire Protection Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Community Forest Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Transportation Plan	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
Agriculture Plan	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>				
Climate Action/ Resilience/Sustainability Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Tourism Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Business/ Downtown Development Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other: Stream Corridor Management Plan	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>				
RESPONSE/RECOVERY PLANNING				
Emergency Operations Plan	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>				
Continuity of Operations Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Substantial Damage Response Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Threat and Hazard Identification and Risk Assessment	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery Plan	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
Public Health Plan	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.

Other	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"> If you issue development permits, what department is responsible? If you do not issue development permits, what is your process for tracking new development? 	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"> If you have a buildable land inventory, please describe 	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)
ADMINISTRATIVE CAPABILITY		
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	-
TECHNICAL/STAFFING CAPABILITY		
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
Flood Vulnerability Summary	
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
NFIP Compliance	



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
2019				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2020				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2021				
Total Permits	48	36	0	84
Permits within SFHA	0	0	0	0
2022				
Total Permits	16	28	1	45
Permits within SFHA	0	0	0	0
2023				
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

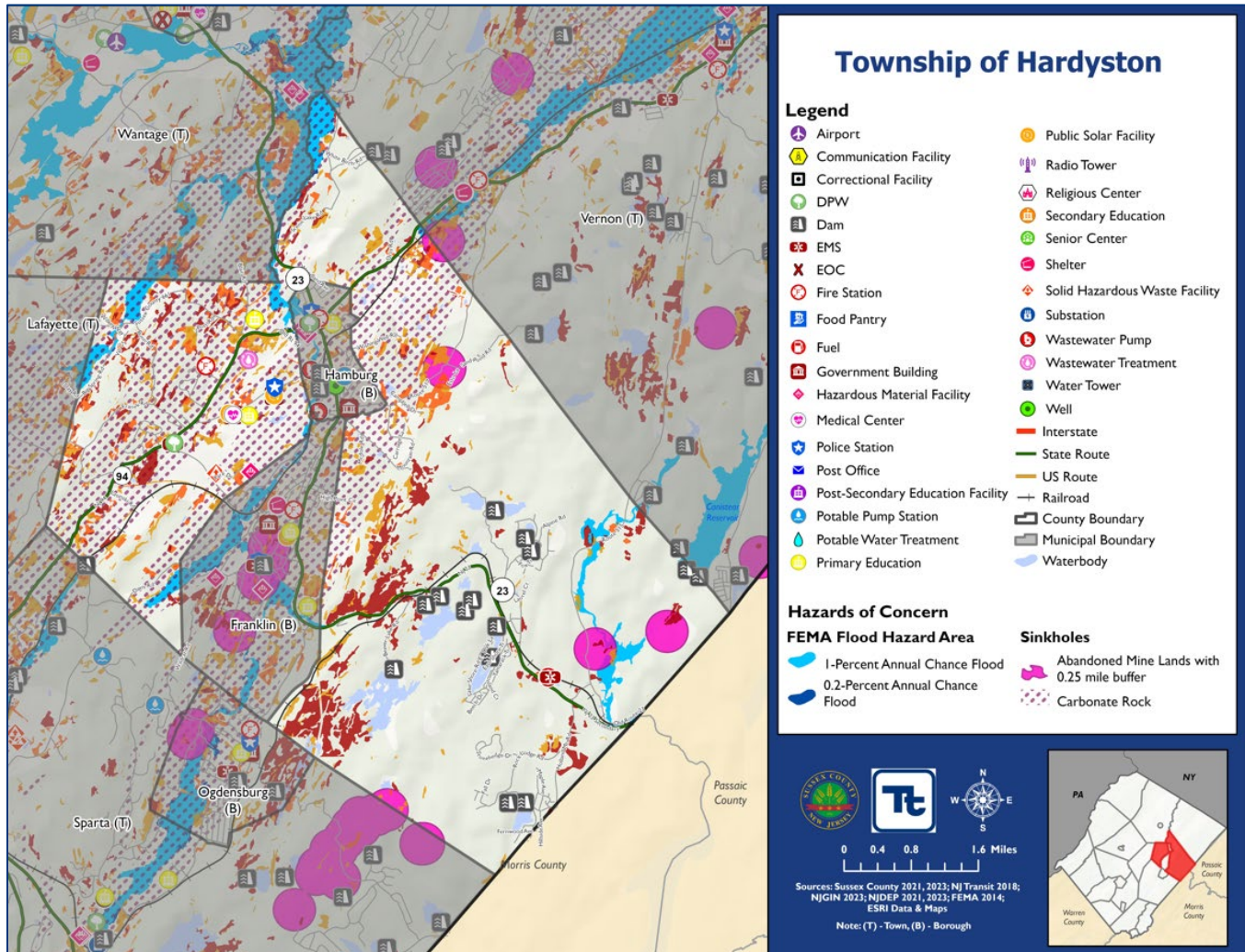


Figure 13-2. Hardyston Hazardous Materials and Wildfire Hazard Area Extent and Location

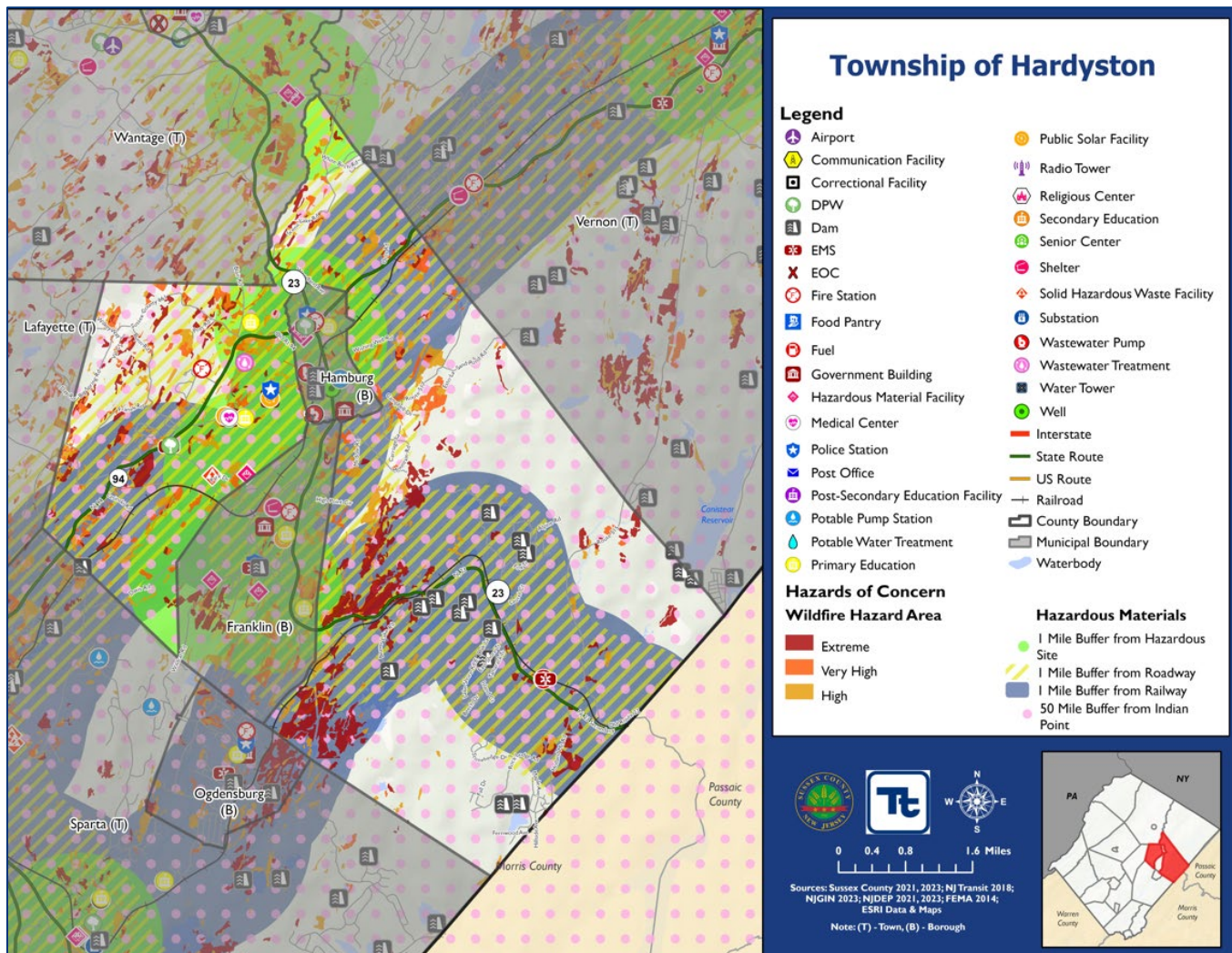
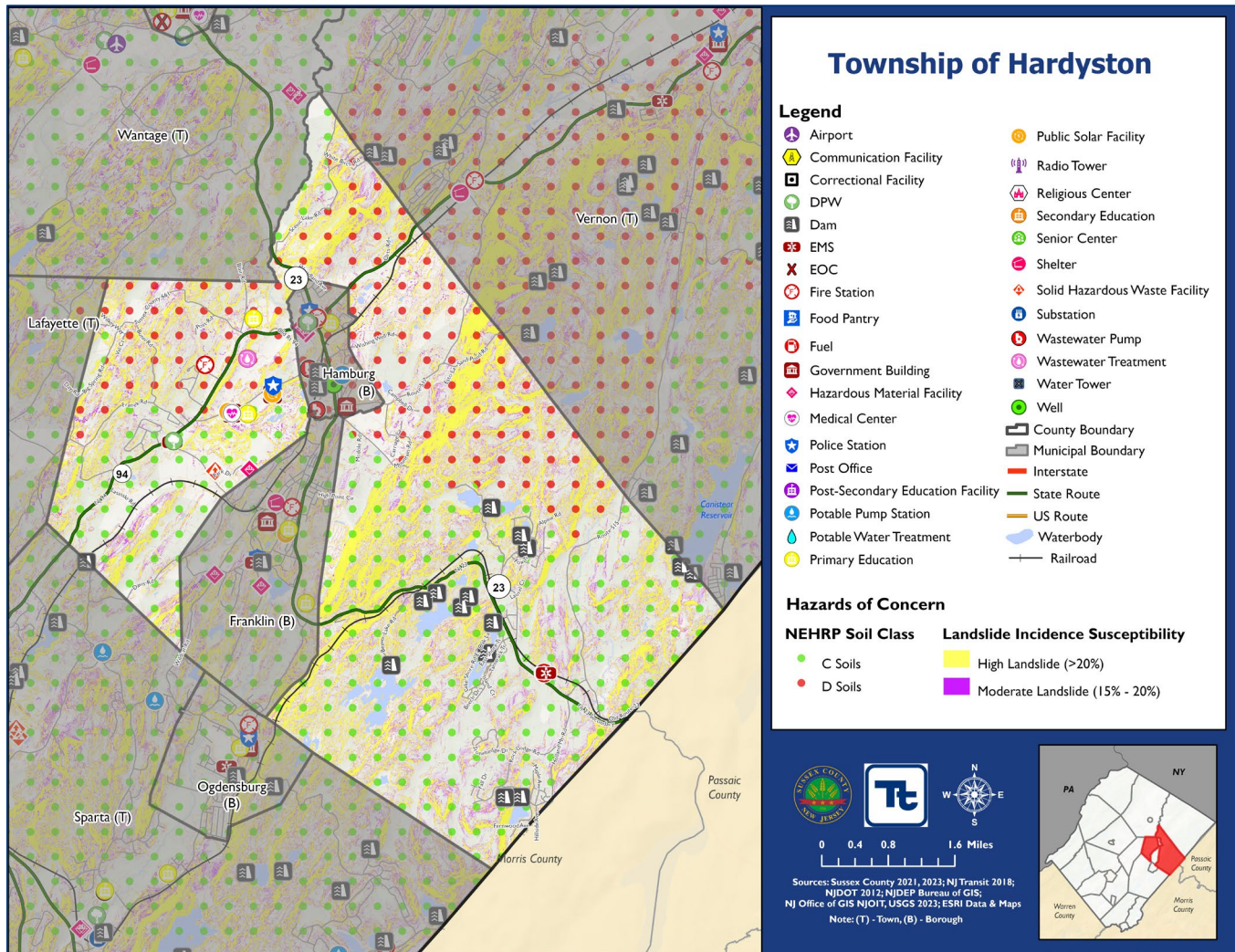


Figure 13-3. Hardyston Landslide and NEHRP Soils Hazard Area Extent and Location Map





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>Problem: 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>Solution: Determine the proper size permanent generator for the fuel station; once determined, purchase and install generator.</p>	1. No Progress. 2. Challenges with funding availability.	1. Include in update 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. 3. Not applicable
2021-Hardyston-002	Firewise Program	Wildfire	Township Administration, Fire Department	<p>Problem: 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>Solution: 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>	1. No Progress. 2. Challenges with funding availability.	1. Include in update 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. 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-Hardyston-003	Colson Terrace Study	Flood, Hurricane, Nor'easter, Severe Winter Weather, Severe Weather	Township	Problem: 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 Solution: 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	Problem: It is unknown if the roof of the elementary school meets the current snow load standards. Solution: 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	Problem: It is unknown if the windows of the elementary school are impact resistant. Solution: 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>Problem: It is unknown if the windows on the southwest side of the municipal building are impact resistant.</p> <p>Solution: 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>Problem: 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>Solution: 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>Problem: 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		Solution: 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	Problem: 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. Solution: 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	Problem: 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. Solution: 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

Lead Agency:	Engineering																
Supporting Agencies:	Public Works, Township Administration																
Hazard(s) of Concern:	<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																	
Description of the Problem:	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.																
Description of the Solution:	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.																
Estimated Cost:	Medium																
Potential Funding Sources:	HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Annual Budget																
Implementation Timeline:	Within 5 years																
Goals Met:	1, 2, 5, 6, 7																
Benefits:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
Impact on Socially Vulnerable Populations:	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.																
Impact on Future Development:	This action results in protection of a critical facility that could support future development.																
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.																
Impact on Capabilities:	This action ensures continuity of operations to maintain capabilities.																
Climate Change Considerations:	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.																
Mitigation Category	<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)																
CRS Category	<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)																
Priority	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
Alternatives:	<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

Lead Agency:	Fire Department																
Supporting Agencies:	Township Administration																
Hazard(s) of Concern:	<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																	
Description of the Problem:	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.																
Description of the Solution:	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.																
Estimated Cost:	Low																
Potential Funding Sources:	Municipal Budget																
Implementation Timeline:	3 years																
Goals Met:	1, 2, 3, 4, 5																
Benefits:	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.																
Impact on Socially Vulnerable Populations:	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.																
Impact on Future Development:	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.																
Impact on Critical Facilities/Lifelines:	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.																
Impact on Capabilities:	This action will increase wildfire risk reduction and response capabilities for the Township.																
Climate Change Considerations:	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.																
Mitigation Category	<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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CRS Category	<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)																
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
Alternatives:	<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

Lead Agency:	Township Administration																
Supporting Agencies:	Public Works																
Hazard(s) of Concern:	<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																	
Description of the Problem:	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.																
Description of the Solution:	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.																
Estimated Cost:	Medium																
Potential Funding Sources:	Township Budget, FEMA BRIC and HMGP																
Implementation Timeline:	5 years																
Goals Met:	1, 2, 5																
Benefits:	This action would reduce the flooding impacts felt by the Township on Vernon Crossing Road caused by drainage issues.																
Impact on Socially Vulnerable Populations:	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.																
Impact on Future Development:	This action protects future development planned in or nearby Colson Terrace and ensures new development will have safe access.																
Impact on Critical Facilities/Lifelines:	This action protects critical facilities, such as EMS and fire departments, and lifelines, such as evacuation roadway, from flooding impacts.																
Impact on Capabilities:	This action would ensure the standards of operation are upheld for EMS and fire departments during flood events.																
Climate Change Considerations:	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.																
Mitigation Category	<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)																
CRS Category	<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)																
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
Alternatives:	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Problem persists</td></tr><tr><td>Raise the roadway</td><td>Costly, not an option.</td></tr><tr><td>Remove the roadway and critical facilities.</td><td>Costly, not publicly accepted.</td></tr></table>	Action	Evaluation	No action	Problem persists	Raise the roadway	Costly, not an option.	Remove the roadway and critical facilities.	Costly, not publicly accepted.								
Action	Evaluation																
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

Lead Agency:	Engineering																
Supporting Agencies:	Township Administration																
Hazard(s) of Concern:	<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																	
Description of the Problem:	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.																
Description of the Solution:	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.																
Estimated Cost:	High																
Potential Funding Sources:	HMGP, BRIC, USDA Community Facilities Grant Program, School Budget																
Implementation Timeline:	Within 5 years																
Goals Met:	1, 2, 4																
Benefits:	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.																
Impact on Socially Vulnerable Populations:	The municipal building may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.																
Impact on Future Development:	Not applicable																
Impact on Critical Facilities/Lifelines:	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.																
Impact on Capabilities:	This action will ensure the safety of staff for the Township, especially during emergency events that results in debris damage.																
Climate Change Considerations:	This action takes into consideration the climate change impacts on the severity and frequency of storm events which may cause destructive debris.																
Mitigation Category	<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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CRS Category	<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)																
Priority	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low														
Alternatives:	<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

Lead Agency:	Emergency Management																
Supporting Agencies:	Public Works, Township Administration																
Hazard(s) of Concern:	<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																	
Description of the Problem:	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.																
Description of the Solution:	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.																
Estimated Cost:	Staff time																
Potential Funding Sources:	Municipal budget																
Implementation Timeline:	Within 5 years																
Goals Met:	5																
Benefits:	The action will result in increased quicker and more efficient cleanup after disaster events.																
Impact on Socially Vulnerable Populations:	Not Applicable																
Impact on Future Development:	Not Applicable																
Impact on Critical Facilities/Lifelines:	Not Applicable																
Impact on Capabilities:	The action will result in increased post disaster capabilities.																
Climate Change Considerations:	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.																
Mitigation Category	<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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CRS Category	<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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Priority	<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															
Alternatives:	<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

Lead Agency:	Floodplain Administrator								
Supporting Agencies:	Construction Official, Township Administration, NFIP State Coordinator, FEMA Regional Office								
Hazard(s) of Concern:	<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>								
Description of the Problem:	<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>								
Description of the Solution:	<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>								
Estimated Cost:	Staff time								
Potential Funding Sources:	Municipal budget								
Implementation Timeline:	Within 5 years								
Goals Met:	1, 2, 5,7								
Benefits:	<p>The updated ordinance will improve floodplain management, meet NFIP requirements, and increase resilience of new and substantially improved structures in the floodplain.</p>								
Impact on Socially Vulnerable Populations:	<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>								
Impact on Future Development:	<p>The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.</p>								
Impact on Critical Facilities/Lifelines:	<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>								
Impact on Capabilities:	<p>This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.</p>								
Climate Change Considerations:	<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>								
Mitigation Category	<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>								
CRS Category	<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>								
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low						
Alternatives:	<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

Lead Agency:	Emergency Management		
Supporting Agencies:	Township Administration, ESF Coordinators		
Hazard(s) of Concern:	<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>		
Description of the Problem:	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.		
Description of the Solution:	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.		
Estimated Cost:	Staff time, Low		
Potential Funding Sources:	Township budget, EMPG		
Implementation Timeline:	1 year		
Goals Met:	1, 2, 6		
Benefits:	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.		
Impact on Socially Vulnerable Populations:	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.		
Impact on Future Development:	Future development will be protected by the actions which OEM performs following the EOP.		
Impact on Critical Facilities/Lifelines:	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).		
Impact on Capabilities:	This action enhances EMS and first responders' capabilities by ensuring standards of operation are upheld during and following a disaster event.		
Climate Change Considerations:	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.		
Mitigation Category	<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)		
CRS Category	<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)		
Priority	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
Alternatives:	Action	Evaluation	
	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

Lead Agency:	Township OEM																
Supporting Agencies:	NJDEP, Dam Owners																
Hazard(s) of Concern:	<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"/> 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																	
Description of the Problem:	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.																
Description of the Solution:	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.																
Estimated Cost:	Low																
Potential Funding Sources:	Municipal budget																
Implementation Timeline:	Within 5 years																
Goals Met:	1, 2, 3, 5, 7																
Benefits:	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.																
Impact on Socially Vulnerable Populations:	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
Impact on Future Development:	Future development near inundation areas will be more secure as safety procedures and inspections are regularly performed on the dams.																
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.																
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
Climate Change Considerations:	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	<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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CRS Category	<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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Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
Alternatives:	<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

Lead Agency:	Engineering																
Supporting Agencies:	Township Administration, School Board Administration																
Hazard(s) of Concern:	<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																	
Description of the Problem:	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.																
Description of the Solution:	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.																
Estimated Cost:	High																
Potential Funding Sources:	HMGP, BRIC, USDA Community Facilities Grant Program, School Budget																
Implementation Timeline:	Within 5 years																
Goals Met:	1, 2, 7																
Benefits:	This action will protect Hardyston Elementary School's roof from collapse from snow loads associated with severe winter weather and nor'easters.																
Impact on Socially Vulnerable Populations:	Hardyston Elementary School may be utilized by the public. This action will protect the individuals and groups within this structure from outside impacts.																
Impact on Future Development:	Not applicable																
Impact on Critical Facilities/Lifelines:	This action will protect Hardyston Elementary School from suffering a potential roof collapse.																
Impact on Capabilities:	Not applicable																
Climate Change Considerations:	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.																
Mitigation Category	<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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CRS Category	<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)																
Priority	<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															
Alternatives:	<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

Lead Agency:	Engineer																
Supporting Agencies:	Dam Managers, NJDEP Bureau of Dam Safety, County Engineer																
Hazard(s) of Concern:	<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																
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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																	
Description of the Problem:	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">• Silver Lake Dam (poor)• Fawn Lake Dam (poor)																
Description of the Solution:	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.																
Estimated Cost:	Low for initial assessment of options, TBD for total cost based on mitigation actions selected																
Potential Funding Sources:	NJDEP, Annual Budget																
Implementation Timeline:	Within 5 years																
Goals Met:	1, 2, 7																
Benefits:	Dam failure will be avoided, which will reduce the risk of harm to people and property downstream.																
Impact on Socially Vulnerable Populations:	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.																
Impact on Future Development:	Future development downstream of dams will also be protected from dam failure.																
Impact on Critical Facilities/Lifelines:	Critical roads and utilities will be protected from potential damage or loss from unintended dam releases.																
Impact on Capabilities:	Not applicable																
Climate Change Considerations:	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.																
Mitigation Category	<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)																
CRS Category	<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)																
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
Alternatives:	<table><tr><th>Action</th><th>Evaluation</th></tr><tr><td>No action</td><td>Problem persists</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	Problem persists	Work without County Engineer involvement	Improvements made but may lack appropriate support from County, including data and potential funding access										
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
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Action 2025-HardystonTwp-11. Substantial Damage Procedures

Lead Agency:	Floodplain Administrator		
Supporting Agencies:	Public Works, Emergency Management, Building Department		
Hazard(s) of Concern:	<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>		
Description of the Problem:	<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"> Determine where the damage occurred within the community and if the damaged structures are in an SFHA. Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. Require permits for floodplain development. <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>		
Description of the Solution:	<p>The municipality will develop a Substantial Damage Management Plan, following the six step planning process in 2021 Developing a Substantial Damage Management Plan (https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
Estimated Cost:	Low		
Potential Funding Sources:	Municipal budget		
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan		
Goals Met:	2, 5		
Benefits:	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.		
Impact on Socially Vulnerable Populations:	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.		
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.		
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.		
Impact on Capabilities:	This action improves disaster recovery capabilities.		
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.		
Mitigation Category	<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>		
CRS Category	<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>		
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation



	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

Lead Agency:	Floodplain Administrator		
Supporting Agencies:	Building Department, FEMA, Sussex County		
Hazard(s) of Concern:	<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		
Description of the Problem:	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.		
Description of the Solution:	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 (https://www.floods.org/) website.		
Estimated Cost:	Low		
Potential Funding Sources:	NJDEP, Annual Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 2, 7		
Benefits:	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.		
Impact on Socially Vulnerable Populations:	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.		
Impact on Future Development:	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
Impact on Critical Facilities/Lifelines:	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.		
Impact on Capabilities:	Officials that attend trainings will have a more confident understanding of floodplain management principles and the basics of NFIP requirements and standards.		
Climate Change Considerations:	Climate change is likely to result in stronger and more frequent rainfall events that will contribute to increased flood risk		
Mitigation Category	<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)		
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 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		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

Lead Agency:	Emergency Management								
Supporting Agencies:	Township Administration, Sussex County								
Hazard(s) of Concern:	<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>								
Description of the Problem:	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.								
Description of the Solution:	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.								
Estimated Cost:	Low								
Potential Funding Sources:	Township Budget, HMGP								
Implementation Timeline:	Within 3 years								
Goals Met:	1, 2, 3, 7								
Benefits:	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.								
Impact on Socially Vulnerable Populations:	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.								
Impact on Future Development:	Not applicable								
Impact on Critical Facilities/Lifelines:	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.								
Impact on Capabilities:	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.								
Climate Change Considerations:	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.								
Mitigation Category	<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>								
CRS Category	<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>								
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low						
Alternatives:	<table><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 Township</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 Township		
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
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Action 2025-HardystonTwp-14. Flood Mitigation Interest

Lead Agency:	Floodplain Administrator		
Supporting Agencies:	Planning Board, Township Administration		
Hazard(s) of Concern:	<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		
Description of the Problem:	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.		
Description of the Solution:	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.		
Estimated Cost:	Staff time, Low		
Potential Funding Sources:	Township Budget		
Implementation Timeline:	Within 2 years		
Goals Met:	1, 2, 5		
Benefits:	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.		
Impact on Socially Vulnerable Populations:	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.		
Impact on Future Development:	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.		
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
Impact on Capabilities:	This action will create a new Township capability, while enhancing its current NFIP capabilities.		
Climate Change Considerations:	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.		
Mitigation Category	<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)		
CRS Category	<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)		
Priority	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low		
Alternatives:	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-HardystonTwp-15. Certified Floodplain Manager Training

Lead Agency:	Floodplain Administrator		
Supporting Agencies:	Engineering, Building Department, Township Administration		
Hazard(s) of Concern:	<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		
Description of the Problem:	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.		
Description of the Solution:	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.		
Estimated Cost:	Low		
Potential Funding Sources:	Township Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 2, 3, 5		
Benefits:	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.		
Impact on Socially Vulnerable Populations:	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.		
Impact on Future Development:	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
Impact on Critical Facilities/Lifelines:	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.		
Impact on Capabilities:	This action will enhance the Township's current NFIP capabilities.		
Climate Change Considerations:	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.		
Mitigation Category	<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)		
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 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	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

Lead Agency:	City of Newark Department of Water and Sewer Utilities																
Supporting Agencies:	County Engineer, County OEM, NJDEP, Municipal Engineer																
Hazard(s) of Concern:	<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																	
Description of the Problem:	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.																
Description of the Solution:	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.																
Estimated Cost:	High																
Potential Funding Sources:	FEMA BRIC, HHPD																
Implementation Timeline:	Within 5 years																
Goals Met:	1, 2, 8																
Benefits:	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.																
Impact on Socially Vulnerable Populations:	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
Impact on Future Development:	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
Impact on Critical Facilities/Lifelines:	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.																
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
Climate Change Considerations:	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.																
Mitigation Category	<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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CRS Category	<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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Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low														
Alternatives:	<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

Lead Agency:	Lake Tamarack Association																
Supporting Agencies:	County Engineer, County OEM, NJDEP, Municipal Engineer																
Hazard(s) of Concern:	<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																	
Description of the Problem:	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.																
Description of the Solution:	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.																
Estimated Cost:	High																
Potential Funding Sources:	FEMA BRIC, HHPD																
Implementation Timeline:	Within 5 years																
Goals Met:	1, 2, 8																
Benefits:	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.																
Impact on Socially Vulnerable Populations:	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.																
Impact on Future Development:	Future development located in or near the dam inundation area will be further protected from a dam failure event.																
Impact on Critical Facilities/Lifelines:	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.																
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.																
Climate Change Considerations:	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.																
Mitigation Category	<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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Priority	<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											
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Alternatives:	<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

Lead Agency:	City of Newark Department of Water and Sewer Utilities		
Supporting Agencies:	County Engineer, County OEM, NJDEP, Municipal Engineer		
Hazard(s) of Concern:	<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		
Description of the Problem:	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.		
Description of the Solution:	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.		
Estimated Cost:	High		
Potential Funding Sources:	FEMA BRIC, HHPD		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 2, 8		
Benefits:	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.		
Impact on Socially Vulnerable Populations:	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exists.		
Impact on Future Development:	Future development located in or near the dam inundation area will be further protected from a dam failure event.		
Impact on Critical Facilities/Lifelines:	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.		
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
Climate Change Considerations:	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.		
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 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 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