



9.12 TOWNSHIP OF HARDYSTON

This section presents the jurisdictional annex for the Township of Hardyston. The annex includes a general overview of the Township of Hardyston; an assessment of the Township of Hardyston’s risk, vulnerability, and mitigation capabilities; and a prioritized action plan to implement prior to a disaster to reduce future losses and achieve greater resilience to natural hazards.

9.12.1 Hazard Mitigation Planning Team

The Township of Hardyston followed the planning process described in Section 2 (Planning Process). This annex was developed over the course of several months with input from many jurisdiction representatives. 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. The coronavirus pandemic resulted in a strain on local resources that limited some participation, but every effort was made to connect with staff and stakeholders and gain diverse input. Due to safety precautions, all meetings were held virtually. The following table summarizes who participated and in what capacity. Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Section 2 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.12-1. 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
NFIP Floodplain Administrator		
Name / Title: Joseph Butto, Construction Official Address: 149 Wheatworth Road Suite A Hardyston NJ 07419 Phone Number: (973) 823-7020 Email: jbutto@hardyston.com		
Name	Title	Method of Participation
William Hickerson	OEM Coordinator	Attended the kickoff meeting, annex training, risk assessment meeting and mitigation strategy workshop. Provided data and information for the annex update.
Carrine Piccolo-Kaufer	Township Manager/Planner	Secondary point of contact.
Joseph Butto	Construction Official	NFIP Floodplain Administrator

9.12.2 Jurisdiction 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 2010 population for the Township of Hardyston was 8174. The estimated 2018 population was 7786, a 4 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 5.5 percent of the population is 5 years of age or younger and 18.8 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.12.3 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 understanding a jurisdiction’s overall risk to its hazards of concern. Table 9.11-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. The figures at the end of this annex illustrate the geographically-delineated hazard areas and the location of potential new development.

Table 9.12-2. Recent and Expected Future Development

Type of Development	2015		2016		2017		2018		2019	
Number of Building Permits for New Construction Issued Since the Previous HMP										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single and Two-Family Units	6	0	2	0	3	0	13	0	0	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	1	0	3	0	0	0	2	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
Crystal Springs - Shotmeyer	Single Family		38		Coventry, Woodcot, Tarrington, Blocks 16.28,16.30, 16.34, 16.37		Railway Incident Hazard Area, Nuclear Incident Hazard Area, Carbonate Soil, Steep Slopes, Wildfire		Under Construction	
Crystal Springs – Shotmeyer	Multi-Family		1 (18 Units)		Tarrington Road , Block 16.29 Lot 1		Railway Incident Hazard Area, Nuclear Incident Hazard Area, Carbonate Soil, Wildfire		Approved	
Emerald Estates	Single Family		4		Emerald Drive/Ruby Court, Block 63, Lots 26.15,26.16,26.17,27.01		Railway Incident Hazard Area, Hazardous Material Incident Area, Nuclear Incident Hazard Area, Carbonate Soil, Steep Slopes, Wildfire		Under Construction	
Estell Manor	Single Family		3		Estell Drive, Block 75 Lot 11.03		Railway Incident Hazard Area, Hazardous Material Incident Area, Nuclear Incident Hazard Area,			



				Carbonate Soil, Wildfire	
NA	None	Under construction	Block 75.01 Lots 1 & 16	Railway Incident Hazard Area, Hazardous Material Incident Hazard Area, Nuclear Incident Hazard Area, Carbonate Soil, Wildfire	Under Construction
Ridgefield Commons	Single Family - Townhouse	8	Brookview, Block 67.23 Lots 1-8	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire	Under Construction
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years					
Crystal Springs – Balmorale	Single Family	15	Exeter Lane/Sutton Court	Railway Incident Hazard Area, Nuclear Incident Hazard Area, Carbonate Soil, Steep Slopes, Wildfire	
Brecia Farms	Single Family	18	Anthony Lane/Davon Court	Hazardous Material Incident Area, Nuclear Incident Hazard Area, Carbonate Soil, Steep Slopes, Wildfire	

* Only location-specific hazard zones or vulnerabilities identified.
SFHA = Special Flood Hazard Area

9.12.4 Capability Assessment

Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. The Township of Hardyston performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. This section summarizes the following findings of the assessment for this jurisdiction:

- An assessment of planning, legal and regulatory capabilities
- Development and permitting capabilities
- An assessment of administrative and technical capabilities
- An assessment of fiscal capabilities
- An assessment of education and outreach capabilities
- Classification under various community mitigation programs
- The community’s adaptive capacity for the impacts of climate change
- Information on NFIP compliance

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized below. The Township of Hardyston identified specific integration activities that will be incorporated into municipal procedures; these actions are included in the updated mitigation strategy.

PLANNING, LEGAL AND REGULATORY CAPABILITY

The table below summarizes the legal and regulatory tools that are available to the Township of Hardyston and where hazard mitigation has been integrated.



Table 9.12-3. Planning, Legal and Regulatory Capability

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
<p>Comment:</p> <ul style="list-style-type: none"> State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019 The Construction Office is responsible for this code in compliance with State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.) The Township’s building code is found in Chapter 62 (Building Construction) of the municipal code. It was originally adopted in 1972 and revised in 1998 and 2000. Prior to the issuance of a building permit for any single-family home, the applicant must submit two copies of a detailed site plan to the building inspector. The site plan must show swales, brooks, streams, springs, retaining walls, terraces, sidewalks, slopes, major rock formations, existing easements, building line setback and elevation at the curb, where existing, and, if no curb, elevation at existing opposite lot corners and center line of driveway where building is to be located, and all provisions for the proper drainage thereof shall be shown on the plan. 					
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<p>Comment:</p> <ul style="list-style-type: none"> State permissive on local level. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. The Zoning Board is responsible for this code in compliance with the Town Council. The Zoning Code is found in Chapter 185 of the Township’s municipal code. It was adopted in 1972 and revised in 1998 and 2021. There are several purposes to the code including securing safety from fire, flood, panic and other natural and man-made disasters. 					
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<p>Comment:</p> <ul style="list-style-type: none"> P.L.1975, c.291 (C.40:55D-47): 40:55D-37. Grant of power; referral of proposed ordinance; county planning board approval a. 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 freeholders 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. Chapter 158 (Subdivision of Land) was first adopted in 1972 and amended in 1998. 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. The Zoning Board and Planning Board are responsible for administering this code. 					
Stormwater Management	Yes	State and Local	Yes	Yes	-
<p>Comment:</p> <ul style="list-style-type: none"> See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8 The Town Council is responsible for this ordinance in compliance with the State. 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	No	-	No	-	-



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment:					
Real Estate Disclosure	No	State, Division of Consumer Affairs	Yes	-	-
Comment: N.J.A.C. 13:45A-29.1 - Before signing a contract of sale, all purchasers must receive a New Jersey Public Offering Statement (POS) approved by the New Jersey Real Estate Commission. The POS provides information such as estimated completion dates for improvements, fees for services and amenities, the type of title and ownership interest being offered, its proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.					
Growth Management	Yes	State	Yes – if municipality has a Planning Board	No	-
Comment:					
<ul style="list-style-type: none"> State Mandated on a municipal level. See Zoning Ordinance ; Also - Plan Endorsement Process via the State Development & Redevelopment Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy. The Town Council is responsible for these ordinances in compliance with the State. 					
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment:					
<ul style="list-style-type: none"> Dictated by the Municipal Land Use Law which sets forth minimum requirements for plans, etc., timeframes for development review. NJ Statute 40:27-6.2: The board of freeholders 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. The Town Council is responsible for these requirements in compliance with the Town Council. 					
Environmental Protection	No	-	No	-	-
Comment:					
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	2021-Hardyston-009
Comment:					
<ul style="list-style-type: none"> The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In addition, participation in the NFIP requires a floodplain ordinance. Regulations for the Flood Control Hazards Act were adopted in 2007 and amended effective June 20, 2016. The Construction official is responsible for this ordinance in compliance with Chapter 96. 					
Wellhead Protection	No	-	No	-	-
Comment:					
Emergency Management	Yes	Local	No	No	-
Comment:					
<ul style="list-style-type: none"> Chapter 19 of the municipal code, adopted in 1972 and revised in 1998. The chapter identified the emergency management coordinator and council. 					
Climate Change	No	-	No	-	-
Comment:					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Disaster Recovery Ordinance	No	-	No	-	-
<i>Comment:</i>					
Disaster Reconstruction Ordinance	No	-	No	-	-
<i>Comment:</i>					
Other:	No	-	No	-	-
<i>Comment:</i>					
Planning Documents					
Comprehensive / Master Plan	Yes	State	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> 2018 Revised NJ Statute 40:27-2; the county planning board shall make and adopt a master plan for the physical development of the county. The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county. The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan and to advise the board of chosen freeholders with respect to the formulation of development programs and budgets for capital expenditures. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28 provides the required components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity. The Planning Board is responsible for this plan, which was adopted in 2014. 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. 					
Capital Improvement Plan	Yes	Town Council	No	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> The Town Manager is responsible for this plan, which was adopted in 2014. 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. 					
Disaster Debris Management Plan	No	-	No	-	2021-Hardyston-008
<i>Comment:</i>					
Floodplain or Watershed Plan	Yes	State	No	Yes	-
<i>Comment:</i> The Planning Board is responsible for this plan. This plan is a part of the Master Plan.					
Stormwater Management Plan	Yes	State	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> The Stormwater Management rules (N.J.A.C. 7:8) rules were published in the February 2, 2004 NJ Register. These rules set forth the required components of regional and municipal stormwater management plans and establish the stormwater management design and performance standards for new (proposed) development. The design and performance standards for new development include groundwater recharge, runoff quantity controls, and runoff quality controls. The rules emphasize, as a primary consideration, the use of nonstructural stormwater management techniques including minimizing disturbance, minimizing impervious surfaces, minimizing the use of stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater runoff quantity control, stormwater runoff quality control, and the prohibition of major development to be located within or to discharge runoff from the major development into a 300-foot riparian zone without prior authorization from the Department under the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13. 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). The Town Council is responsible for this plan. 					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Stormwater Pollution Prevention Plan	Yes/No	If yes, who enforces?	Yes	Yes/No	Yes/No
Comment:					
<ul style="list-style-type: none"> The Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program (NJPDES) rules (N.J.A.C. 7:14A) were published in the February 2, 2004, NJ Register. These NJPDES rules are intended to address and reduce pollutants associated with existing stormwater runoff. The NJPDES rules establish a regulatory program for existing stormwater discharges as required under the Federal Clean Water Act. These NJPDES rules govern the issuance of permits to entities that own or operate small municipal separate storm sewer systems, known as MS4s. Under this program, permits must be secured by municipalities, certain public complexes such as universities and hospitals, and State, interstate and federal agencies that operate or maintain highways. The permit program establishes the Statewide Basic Requirements that must be implemented to reduce nonpoint source pollutant loads from these sources. The Statewide Basic Requirements include measures such as: the adoption of ordinances (litter control, pet waste, wildlife feeding, proper waste disposal, etc.); the development of a municipal stormwater management plan and implementing ordinance(s); requiring certain maintenance activities (such as street sweeping and catch basin cleaning); implementing solids and floatables control; locating discharge points and stenciling catch basins; and a public education component. 					
Urban Water Management Plan	No	-	No	-	-
Comment:					
Habitat Conservation Plan	No	-	No	-	-
Comment:					
Economic Development Plan	No	-	No	-	-
Comment:					
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment:					
<ul style="list-style-type: none"> NJ Coastal Area Facility Review Act (N.J.S.A. 13:19) or CAFRA regulates almost all development along the coast for activities including construction, relocation, and enlargement of buildings or structures, and excavation, grading, shore protection structures, and site preparation. This law is implemented through NJ's Coastal Zone management Rules N.J.A.C. 7:7E-1 et seq. 					
Community Wildfire Protection Plan	No	-	No	-	-
Comment:					
Community Forest Management Plan	Yes	Local	No	Yes	-
Comment: Planning Board is responsible for this plan which is a part of the Master Plan					
Transportation Plan	Yes	Local	No	Yes	-
Comment: The Planning Board is responsible for this plan, which is a part of the Master Plan.					
Agriculture Plan	Yes	Local	No	Yes	-
Comment: The Planning Board is responsible for this plan which is a part of the Master Plan					
Climate Action Plan	No	-	No	-	-
Comment:					
Tourism Plan	No	-	No	-	-
Comment:					
Business Development Plan	No	-	No	-	-
Comment: While there is no plan in place, the Township has an Economic Development Advisory Commission that assists in attracting new business and industry as well as retaining established businesses.					
Other: Open Space Plan	Yes	Local	No	Yes	-
Comment:					
<ul style="list-style-type: none"> The Planning Board is responsible for this plan, which is a part of the Master Plan. 					
Stream Corridor Management Plan	Yes	Local	No	Yes	-



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				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<i>Comment: The Planning Board is responsible for this plan, which is a part of the Master Plan.</i>					
Watershed Management or Protection Plan	Yes	Local	No	Yes	-
<i>Comment: The Planning Board is responsible for this plan, which is a part of the Master Plan.</i>					
Response/Recovery Planning					
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Township OEM	Yes	Yes	-
<i>Comment:</i> <ul style="list-style-type: none"> 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. This plan was adopted in 2014. The Office of Emergency Management is responsible for this plan. 					
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Township OEM	No	Yes	-
<i>Comment: Part of the Township's EOP</i>					
Post-Disaster Recovery Plan	No	-	No	-	-
<i>Comment:</i>					
Continuity of Operations Plan	No	-	No	-	-
<i>Comment:</i>					
Public Health Plan	Yes	County	No	Yes	-
<i>Comment: Performed at the county level</i>					
Other	No	-	No	-	-
<i>Comment:</i>					

Table 9.12-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Building Department
Does your jurisdiction have the ability to track permits by hazard area?	Yes
Does your jurisdiction have a buildable lands inventory? -If yes, please describe briefly. -If no, please quantitatively describe the level of buildout in the jurisdiction.	Yes, the Township completed a buildable land inventories as part of its housing element.

ADMINISTRATIVE AND TECHNICAL CAPABILITY

The table below summarizes potential staff and personnel resources available to the Township of Hardyston.

Table 9.12-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board and Zoning Bord of Adjustment
Mitigation Planning Committee	Yes	OEM
Environmental Board / Commission	Yes	Clean Communities Program



Staff/Personnel Resource	Available?	Department/Agency/Position
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.
Warning Systems / Services (mass notification system, outdoor warning signals)	Yes	Swift911 and PSAP
Maintenance program to reduce risk	Yes	Town Manager Insurance related
Mutual aid agreements	Yes	Fire Department, Police and EMS
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 training in benefit/cost analysis	Yes	OEM and Deputy Manager
Staff with training in green infrastructure	Yes	Land Use/Town Manager
Staff with education/knowledge/training in low impact development	Yes	Town Manager
Surveyor	No	-
Stormwater engineer	Yes	Township Engineering dept
Personnel skilled or trained in GIS applications	Yes	Zoning
Local or state water quality professional	No	Use Sussex County BOH
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	OEM
Watershed planner	Yes	Town planner/Manager
Environmental specialist	No	-
Grant writers	Yes	OEM and Deputy Manager
Resilience Officer	No	-
Other: NFIP Floodplain Administrator	Yes	Construction Official
Other: Professionals trained in conducting damage assessments	Yes	OEM and Construction

FISCAL CAPABILITY

The table below summarizes financial resources available to the Township of Hardyston.

Table 9.12-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes; Hardyston Town Council
Capital Improvements Project Funding	Yes; Hardyston Town Council
Authority to Levy Taxes for Specific Purposes	Yes; Hardyston Town Council
User Fees for Water, Sewer, Gas or Electric Service	Yes; Hardyston Town Council
Incur Debt through General Obligation Bonds	Yes; Hardyston Town Council
Incur Debt through Special Tax Bonds	Yes; Hardyston Town Council
Incur Debt through Private Activity Bonds	Yes; Hardyston Town Council





Financial Resource	Accessible or Eligible to Use?
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	No
Development Impact Fees for Homebuyers or Developers	No
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No
Other: Open Space Acquisition Funding Programs	Yes; Hardyston Town Council

EDUCATION AND OUTREACH CAPABILITY

The table below summarizes the education and outreach resources available to the Township of Hardyston.

Table 9.12-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes
Do you have personnel skilled or trained in website development?	Yes
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	The Township’s municipal website has notices and announcements specific to the municipality. They also have a storm preparation checklist on their main page.
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation? -If yes, briefly describe.	No
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, briefly describe.	Yes, Township Lake and development associations

COMMUNITY CLASSIFICATIONS

The table below summarizes the classifications for community programs available to the Township of Hardyston.

Table 9.12-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (Fire ISO Protection Class)	No	-	-
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	Yes	Not certified	Joined program on 9/7/2010

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 2014). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.





Table 9.12-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Flood	Moderate
Geologic	Moderate
Hazardous Materials	Moderate
Hurricane and Tropical Storm	Moderate
Invasive Species	Moderate
Nor'Easter	Moderate
Severe Weather	Moderate
Severe Winter Weather	Strong
Wildfire	Moderate

Notes:

Strong = Capacity exists and is in use; Moderate = Capacity may exist, but is not used or could use some improvement; Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

NATIONAL FLOOD INSURANCE PROGRAM

This section provides specific information on the management and regulation of the regulatory floodplain.

Table 9.12-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Building Department
Who is your floodplain administrator? (name, department/position)	Joe Butto, Construction Official
Are any certified floodplain managers on staff in your jurisdiction?	???
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.
When was the most recent Community Assistance Visit or Community Assistance Contact?	January 10, 1995
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? -If so, state what they are.	No
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what they are.	???
Do your flood hazard maps adequately address the flood risk within your jurisdiction? -If no, state why.	???



Criterion	Response
Does your floodplain management staff need any assistance or training to support its floodplain management program? - If so, what type of assistance/training is needed?	No
Does your jurisdiction participate in the Community Rating System (CRS)? -If yes, is your jurisdiction interested in improving its CRS Classification? -If no, is your jurisdiction interested in joining the CRS program?	No, and the community has not considered joining CRS at this time.
How many flood insurance policies are in force in your jurisdiction?*	8 policies
-What is the insurance in force? -What is the premium in force?	
How many total loss claims have been filed in your jurisdiction?*	2 claims
-How many claims are still open or were closed without payment? -What were the total payments for losses?	\$60,787 in payments
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

*According to FEMA statistics as of October 13, 2020
Reference: FEMA 2020

OPPORTUNITIES FOR FUTURE INTEGRATION

- **Firewise Program:** 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 (2021-Hardyston-002).
- **Disaster Debris Management Plan:** 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 (2021-Hardyston-008).
- **Flood Damage Prevention Ordinance:** The Township will update its flood damage prevention ordinance to meet the New Jersey requirement of one foot of freeboard (2021-Hardyston-009).

9.12.5 Hazard Event History Specific to the Jurisdiction

Sussex County has a history of hazard events, as detailed in Section 4 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles in Section 4.3 (Hazards of Concern) and includes a chronology of events that affected Sussex County and its jurisdictions. The Township of Hardyston’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Sussex County. Table 9.11-11 provides details regarding municipal-specific loss and damages the jurisdiction experienced during hazard events. Information provided in the table below is based on reference material or local sources.

Table 9.12-11. Hazard Event History

Date(s) of Event	Event Type (disaster declaration if applicable)	Sussex County Designated?	Summary of Event	Summary of Local Damages and Losses
January 22, 2016 - January 24, 2016	DR-4264: Severe Winter Storm and Snowstorm	Yes	A major nor'easter, produced record snowfall and blizzard conditions in parts of New Jersey on January 23 rd and 24 th .	???





Date(s) of Event	Event Type (disaster declaration if applicable)	Sussex County Designated?	Summary of Event	Summary of Local Damages and Losses
January 20, 2020 and continuing	EM-3451, DR-4488: COVID-19 Pandemic	Yes	The coronavirus pandemic resulted in the need for shutdowns and social distancing and mask requirements.	Currently 30K request for cost reimbursement submitted

Source: FEMA 2020, NOAA NCEI 2020

9.12.6 Jurisdiction-Specific Vulnerabilities and Hazard Ranking

The hazard profiles in Section 4 (Risk Assessment) provide detailed information regarding each plan participant’s vulnerability to the identified hazards. Refer to Section 4.2 (Methodology and Tools) and Section 4.4 (Hazard Ranking) for a detailed summary for the Township of Hardyston risk assessment results and data used to determine the hazard ranking discussed later in this section.

HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps were generated for the Township of Hardyston that illustrate the probable areas impacted within the municipality. 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 have been generated only for those hazards that can be clearly identified using mapping techniques and technologies and for which the Township of Hardyston has significant exposure.

REPETITIVE FLOOD LOSSES

The following summarizes the repetitive and severe repetitive flood losses in the Township of Hardyston.

- Number of repetitive loss (RL) properties: 0
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

Source: FEMA 2019

CRITICAL FACILITIES AND LIFELINES

The table below identifies critical facilities and lifelines in the community located in the 1-percent and 0.2-percent floodplain.

Table 9.12-12. Critical Facilities and Lifelines Flood Exposure

Name	Type	Exposure	
		1% Event	0.2% Event
22-192 Canistear Reservoir #1 Dam	Dam	X	X

Source: Sussex County Planning Partnership 2020

Note:

*Identified lifeline

IDENTIFIED ISSUES AND PROBLEM AREAS

The jurisdiction has identified the following vulnerabilities within their 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 can fuel municipal vehicles.
- Hardyston Township has over 4000 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.
- 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.
- It is unknown if the roof of the elementary school meets the current snow load standards.
- It is unknown if the windows of the elementary school are impact resistant.
- It is unknown if the windows on the southwest side of the municipal building are impact resistant.
- 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.
- The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Township’s current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meet New Jersey’s minimum requirement.

HAZARD RANKING

This section summarizes the jurisdiction’s primary hazards of concern based on identified problems, impacts and the results of the risk assessment as presented in Section 4 (Risk Assessment). The ranking process involves an assessment of the likelihood of occurrence for each hazard; its potential impacts on people, property, and the economy; community capability and changing future climate conditions. This input supports the development of mitigation actions, targeting those hazards with the highest level of concern.

As discussed in Section 4.4 (Hazard Ranking), each plan participant may have differing degrees of risk exposure and vulnerability compared to Sussex County as a whole. Therefore, the Township of Hardyston ranked each hazard’s degree of risk as it pertains to their community factoring in their capabilities to withstand impacts and rebound after the event. The table below summarizes the hazard rankings of potential hazards for the Township of Hardyston. The Township of Hardyston has reviewed the Sussex County hazard ranking table and has provided input to its individual results to reflect the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township of Hardyston agreed with the calculated hazard rankings.

Table 9.12-13. Township of Hardyston Hazard Ranking

Dam Failure	Disease Outbreak	Drought	Earthquake	Flood	Geologic	
Medium	Medium	Medium	Medium	Medium	Low	
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor’Easter	Severe Weather	Severe Winter Weather	Wildfire
Medium	High	Medium	High	High	High	Medium

9.12.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and provides action prioritization.



PAST MITIGATION INITIATIVE STATUS

The following table summarizes the jurisdiction’s progress on their mitigation strategy identified in the 2016 HMP. Actions that are carried forward as part of this plan update are included in Table 9.11-15 and Table 9.11-16 with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and can also be found under ‘Capability Assessment’ presented previously in this annex.

Table 9.12-14. Status of Previous HMP Mitigation Actions

2016 Action Number	Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2021 HMP Update?	
				Check if Yes	Enter 2021 HMP Action #
Hardyston-1 (new)	Ensure continuity of operations at critical facilities and municipal buildings: Hardyston Township Critical Facilities Generators	OEM	Fire Houses and Police/Dispatch complete. DPW and fuel station no funding	X (for DPW)	2021-Hardyston-001
Hardyston-2 (old #1)	Implement Fire Wise Program throughout Township. Create an education program and set up town hall meetings.	OEM Coordinator	No progress	X	2021-Hardyston-002
Hardyston-3 (old #3)	Stormwater management study to correct storm drainage system located on Colson Terrace.	DPW and OEM	No progress	X	2021-Hardyston-003
Hardyston-4 (revised old #4)	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.	School Board Administrator	No Progress	X	2021-Hardyston-004
Hardyston-5 (revised #5)	Conduct engineering study to determine the correct actions for retrofitting the gymnasium windows of the elementary school to make them impact resistant. Once completed, identify mitigation actions to correct the problem.	School Board Administrator	No Progress	X	2021-Hardyston-005
Hardyston-6 (revised #6)	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.	Township Manager	No Progress	X	2021-Hardyston-004
Hardyston-7 (revised #7)	Educate citizens on hazard mitigation and preparedness through Town Hall meetings and outreach programs.	OEM Coordinator	Ongoing/In Progress - meetings with lake and development associations on going	-	-
Hardyston-8	Establish a line item for mitigation project funding in	Township	Ongoing Capability	-	-





2016 Action Number Action Description		Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2021 HMP Update?	
				Check if Yes	Enter 2021 HMP Action #
(new)	both the municipal budget and Capital Improvement Plan.				
Hardyston-9 (new)	Adopt and enforce codes and standards beyond FEMA and state NFIP minimum requirements.	Township	In Progress	X	2021-Hardyston-009
Hardyston-10 (new)	Where applicable, Township job descriptions will incorporate hazard mitigation.	Township	Ongoing Capability	-	-
Hardyston-11 (new)	Incorporate hazard mitigation in the daily practice of the Township; all projects identified in Township's annex will be a goal of the municipality.	Township	Ongoing Capability - Hardyston Twp. develops 5 year plans which address risk management	-	-
Hardyston-12 (new)	Establish a community resilience committee and advisor for the Township which will increase the Township's capacity to prepare for, mitigate, respond to and recover from hazard events in the community.	Township Administration, OEM Coordinator	Township OEM	-	-
Hardyston-13 (new)	Provide informational handouts or meetings to share best practices of hazard mitigation and increase the knowledge of mitigation throughout the Township.	Township Administration, OEM Coordinator	Available at town hall, adding to web pages	-	-
Hardyston-14 (new)	Develop a continuity of operations (COOP) plan which will identify mitigation opportunities.	Township			
Hardyston-15 (old #2)	Correct the stormwater drainage on Colson Terrace.	Township OEM and DPW	No Progress	X	2021-Hardyston-003

In addition to the above progress, the Township of Hardyston identified the following mitigation projects/activities that were completed but not identified in the 2016 HMP mitigation strategy:

- None identified

PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE

The Township of Hardyston participated in a risk assessment workshop in October 2020 in which detailed information was provided about assets exposed and vulnerable to the identified hazards of concern. The Township of Hardyston participated in a mitigation action workshop in November 2020 and was provided a Mitigation Toolbox that included a mitigation catalog developed specifically for Sussex County and its hazards of concerns; challenges and opportunities identified during the capability and risk assessments; mitigation funding sources, and the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 *Selecting Appropriate*





Mitigation Measures for Floodprone Structures (March 2007) and *FEMA Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards* (January 2013). Section 6 (Mitigation Strategy) and Appendix F (Mitigation Strategy Supplement) provide a more complete description of the Mitigation Toolbox and its resources.

Table 9.11-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Hardyston would like to pursue in the future to reduce the effects of hazards. Initiatives are dependent upon available funding (grants and local match availability) and can be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6 (Mitigation Strategy), 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing actions as *High*, *Medium*, or *Low*. The table below summarizes the evaluation of each mitigation initiative, listed by action number.

Table 9.11-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.

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Table 9.12-15. Proposed Hazard Mitigation Initiatives

Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2021-Hardyston-001	DPW Fuel Station Generator	<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>	Existing	All	2, 6	Engineering, DPW, Township Administration	FEMA HMGP, Township Budget	Continuity of operations; provide fuel to municipal vehicles	\$100,000	Within 2 years	High	SIP	ES
2021-Hardyston-002	Firewise Program	<p>Problem: Hardyston Township has over 4000 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 town hall meetings.</p>	Existing	Wildfire	1, 2, 3	Township Administration, Fire Department	Township budget	Increase wildfire awareness, provide grant opportunities for Township	<\$20,000	Within 4 years	Medium	LPR, EAP	PI, ES
2021-Hardyston-003	Colson Terrace Study	<p>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.</p> <p>Solution: Conduct an engineering study to determine the drainage issues on Colson Terrace. Once study is complete and solutions are identified, obtain funding to</p>	Existing	Flood, Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather	1, 2, 5	Engineering, DPW, Township Administration	Township Budget, FEMA BRIC and HMGP	Identify drainage issues and provide solutions to reduce or alleviate the problem	\$50,000+	Within 2 years	High	LPR, SIP	PR, SP



Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		implement best solution to alleviate the drainage issues.											
2021-Hardyston-004	Engineering Study (roof) on Elementary School	<p>Problem: It is unknown if the roof of the elementary school meets the current snow load standards.</p> <p>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</p>	Existing	Severe Winter Weather, Nor’Easter	1, 2, 4	School Board Administration	School and Township Budgets	Identifies any required actions to protect the facility	\$25,000	Within 3 years	Medium	LPR, SIP	PR
2021-Hardyston-005	Engineering Study (windows) on Elementary School	<p>Problem: It is unknown if the windows of the elementary school are impact resistant.</p> <p>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, identify mitigation actions to correct the problem.</p>	Existing	Severe Weather, Hurricane, Nor’Easter	1, 2, 4	School Board Administration	School and Township Budgets	Identifies any required actions to protect the facility	\$25,000	Within 3 years	Medium	LPR, SIP	PR
2021-Hardyston-006	Engineering Study on Municipal Building	<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>	Existing	Severe Weather, Hurricane, Nor’Easter	1, 2, 4	Township Administration	Township budget	Identifies any required actions to protect the facility	\$25,000	Within 3 years	Medium	LPR, SIP	PR
2021-Hardyston-007	Enhance Municipal Buildings	<p>Problem: Due to the current COVID-19 pandemic, the Township has identified several areas in their buildings that could be enhanced to reduce expose to bacteria and viruses.</p>	Existing	Disease Outbreak	1, 2, 5	Township Administration	Township budget	Increase protection from diseases; decrease risk of spread	\$50,000+	Within 5 years	Medium	SIP	ES, PR



Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		Solution: The Township will upgrade the bathroom facilities in the town 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.											
2021-Hardyston-008	Develop Debris Management Plan	<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>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.</p>	Existing	Flood, Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather, Wildfire	3, 5, 6	OEM, Public Works	Township budget	Increased disaster capability and preparedness	Staff time	1 year	High	LPR	ES
2021-Hardyston-009	Update Flood Damage Prevention Ordinance	<p>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 meet New Jersey's minimum requirement.</p> <p>Solution: The Township will update its flood damage prevention ordinance to meet the New Jersey requirement of one foot of freeboard.</p>	New and Existing	Flood	1, 2	Township Administration, Construction Official	Township budget, FEMA BRIC	Meet state standards, reduce future flood risk	Staff time	6 months	High	LPR	PR

Notes:

Acronyms and Abbreviations:

CAV Community Assistance Visit
 CRS Community Rating System
 DPW Department of Public Works

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program
 HMGP Hazard Mitigation Grant Program
 PDM Pre-Disaster Mitigation Grant Program

Timeline:

The time required for completion of the project upon implementation

Cost:





- FEMA Federal Emergency Management Agency
- FPA Floodplain Administrator
- HMA Hazard Mitigation Assistance
- N/A Not applicable
- NFIP National Flood Insurance Program
- OEM Office of Emergency Management

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Mitigation Category:

- 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 manmade 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.

CRS Category:

- 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. 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. 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. Structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.

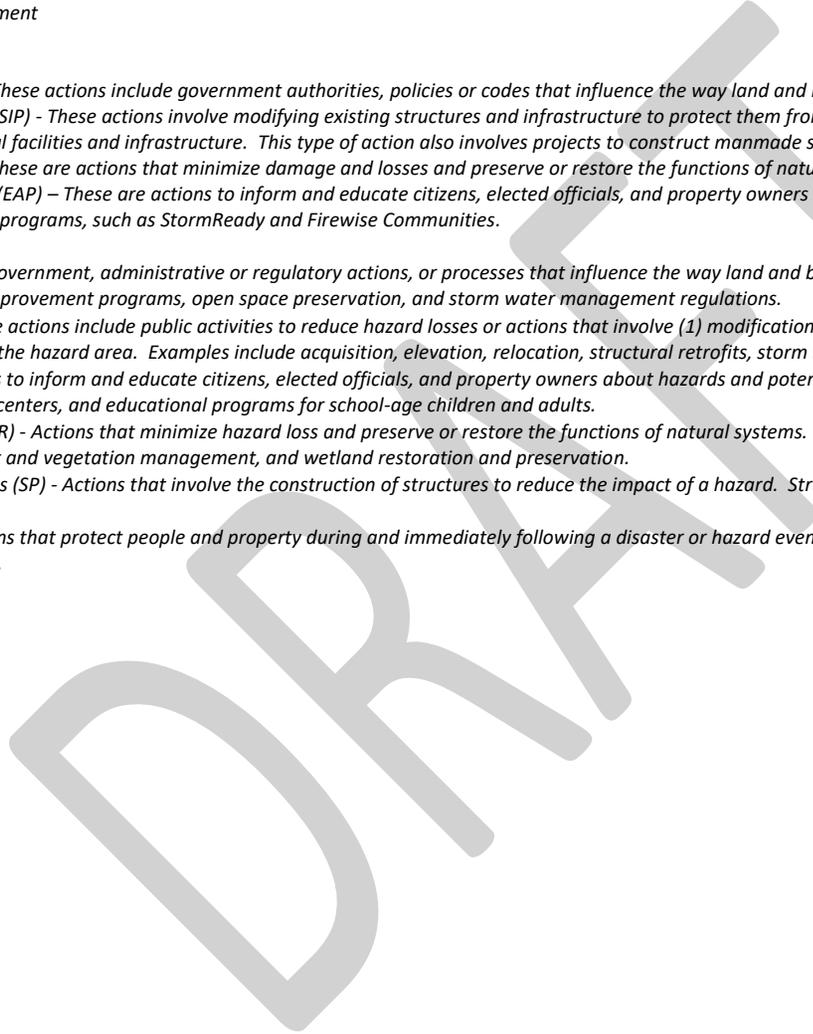




Table 9.12-16. Summary of Evaluation and Action Priorities

Initiative Number	Mitigation Initiative Name	Life Safety	Property Protection	Cost Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2021-Hardyston-001	DPW Fuel Station Generator	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High ▲
2021-Hardyston-002	Firewise Program	1	1	1	1	0	0	1	1	0	1	0	1	0	0	8	Medium
2021-Hardyston-003	Colson Terrace Study	1	1	1	1	1	1	0	1	0	1	1	1	1	0	11	High
2021-Hardyston-004	Engineering Study (roof) on Elementary School	1	1	1	1	0	0	0	0	0	0	0	1	0	0	5	Medium
2021-Hardyston-005	Engineering Study (windows) on Elementary School	1	1	1	1	0	0	0	0	0	0	0	1	0	0	5	Medium
2021-Hardyston-006	Engineering Study on Municipal Building	1	1	1	1	1	1	0	0	0	1	0	1	0	0	8	Medium
2021-Hardyston-007	Enhance Municipal Buildings	1	1	1	1	1	1	0	0	0	1	0	1	0	0	8	Medium
2021-Hardyston-008	Develop Debris Management Plan	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
2021-Hardyston-009	Update Flood Damage Prevention Ordinance	1	1	1	1	1	1	1	0	0	1	0	1	1	0	10	High

Notes: Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).

▲ This action has been identified as being of highest importance to the municipality and an action that the municipality would like to complete as soon as funding is received.

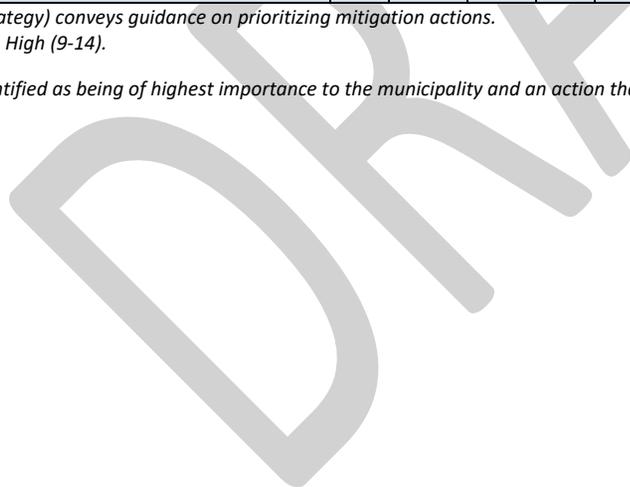




Table 9.12-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	Prevention	Property Protection	Public Education and Awareness	Natural Resource Protection	Emergency Services	Structural Projects	Climate Resilient	Community Capacity Building
Dam Failure					X	X		X
Disease Outbreak	X				X	X		X
Drought					X	X		X
Earthquake					X	X		X
Flood	X				X	X	X	X
Geologic					X	X		X
Hazardous Materials					X	X		X
Hurricane and Tropical Storm	X				X	X		X
Invasive Species					X	X		X
Nor'Easter	X				X	X		X
Severe Weather	X				X	X		X
Severe Winter Weather	X				X	X		X
Wildfire	X		X		X	X		X

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard

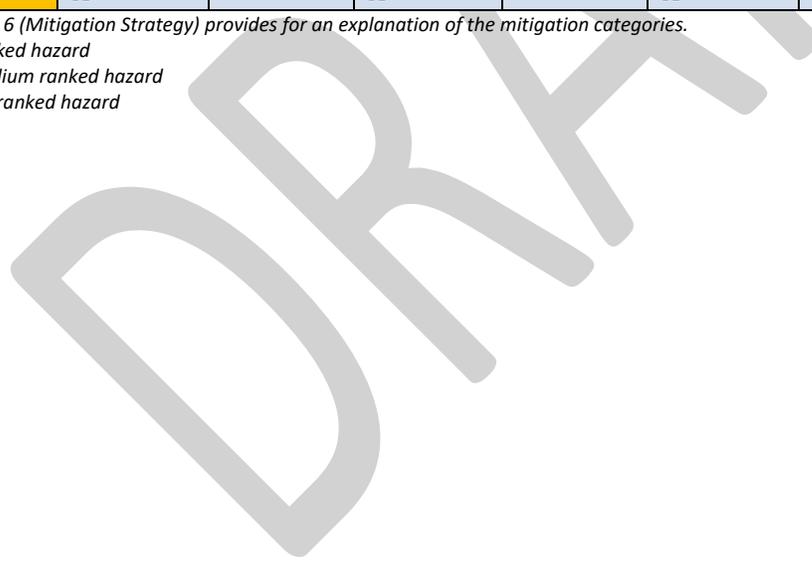




Figure 9.12-1. Township of Hardyston Hazard Area Extent and Location Map 1

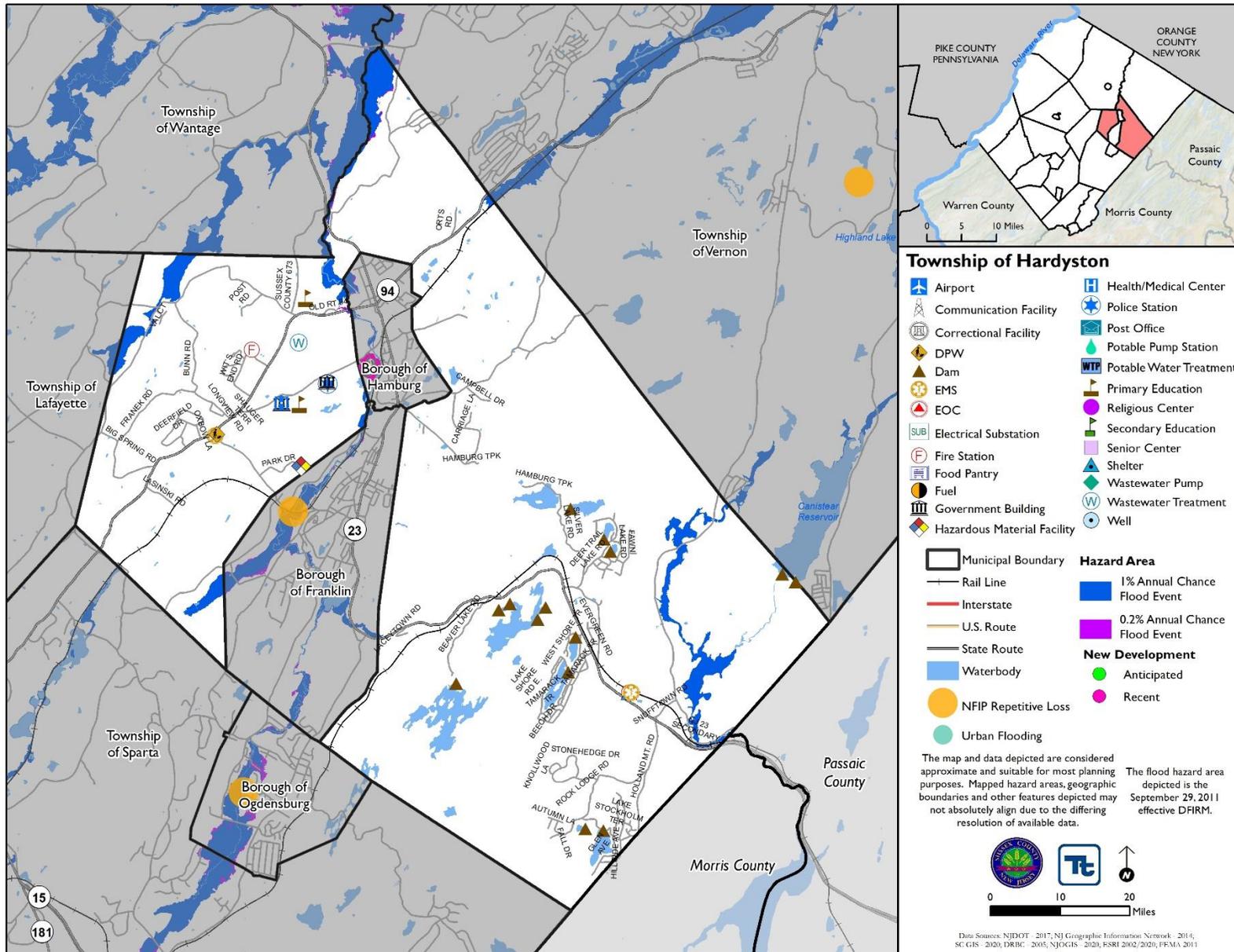




Figure 9.12-2. Township of Hardyston Hazard Area Extent and Location Map 2

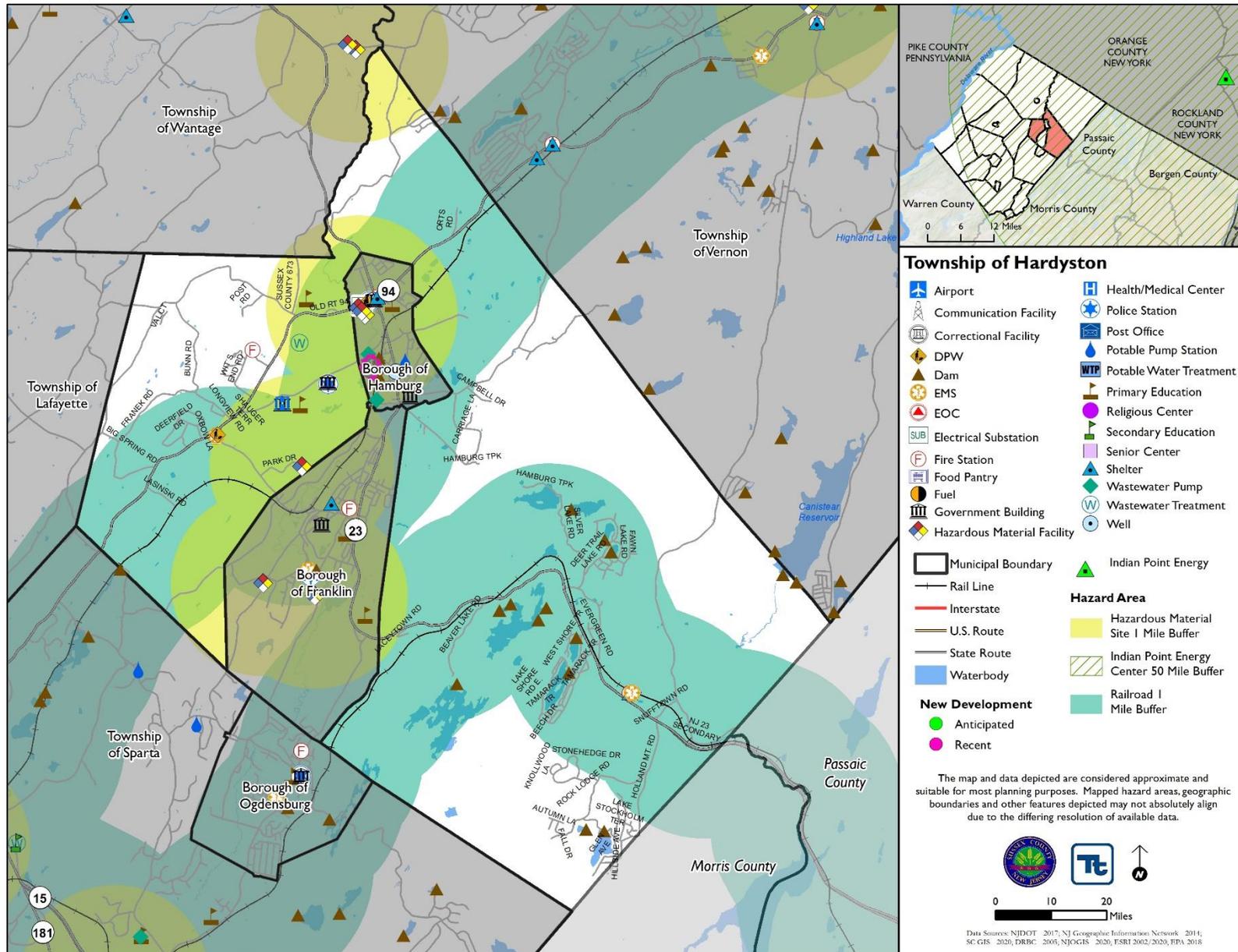
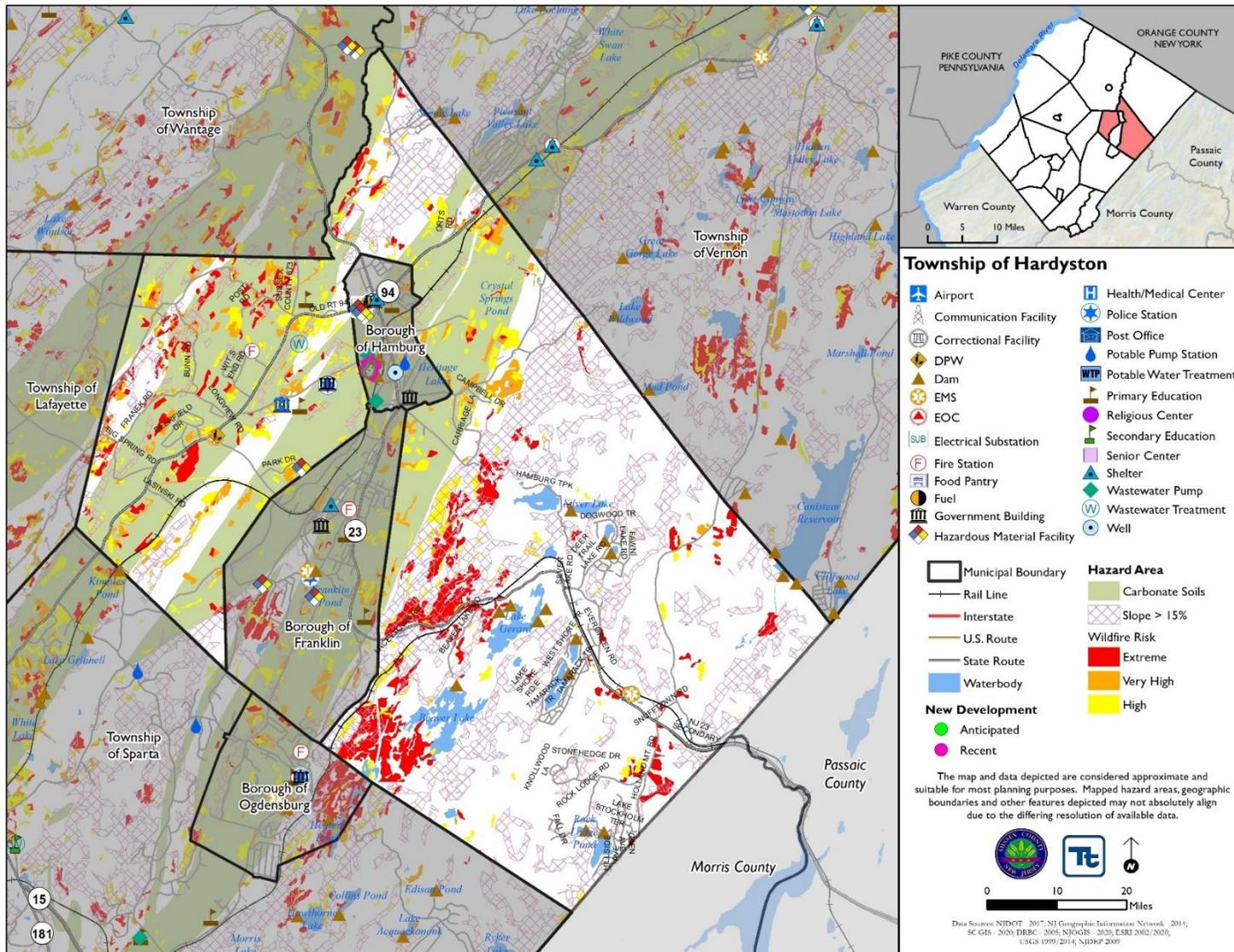




Figure 9.12-3 Township of Hardyston Hazard Area Extent and Location Map 3





Action Worksheet			
Project Name:	DPW Fuel Station Generator		
Project Number:	2021-Hardyston-001		
Risk / Vulnerability			
Hazard(s) of Concern:	All		
Description of the 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.		
Action or Project Intended for Implementation			
Description of the Solution:	Determine the proper size permanent generator for the fuel station; once determined, purchase and install generator.		
Is this project related to a Critical Facility or Lifeline?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Continuity of operations; provide fuel to municipal vehicles
Useful Life:	5 years	Goals Met:	2, 6
Estimated Cost:	\$100,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 2 years
Estimated Time Required for Project Implementation:	Within 2 years	Potential Funding Sources:	FEMA HMGP, Township Budget
Responsible Organization:	Engineering, DPW, Township Administration	Local Planning Mechanisms to be Used in Implementation if any:	N/A
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Install solar panels at fuel station	\$25,000+	Weather dependent; maintenance costs
	Install wind turbine	\$25,000+	Weather dependent; maintenance costs
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	DPW Fuel Station Generator	
Project Number:	2021-Hardyston-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Provide continuity of operations; allows building to operate during power outage
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Township has the legal authority to implement this project
Fiscal	0	The Township will need funding to complete project
Environmental	0	No environmental impacts
Social	0	No social impacts
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	1	To be completed within 2 years
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Colson Terrace Study		
Project Number:	2021-Hardyston-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather		
Description of the 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.		
Action or Project Intended for Implementation			
Description of the 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.		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Identify drainage issues and provide solutions to reduce or alleviate the problem
Useful Life:	N/A	Goals Met:	1, 2, 5
Estimated Cost:	\$50,000+	Mitigation Action Type:	LPR, SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 2 years
Estimated Time Required for Project Implementation:	Within 2 years	Potential Funding Sources:	Township Budget, FEMA BRIC and HMGP
Responsible Organization:	Engineering, DPW, Township Administration	Local Planning Mechanisms to be Used in Implementation if any:	N/A
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate buildings located along Colson Terrace	\$1 million+	Costly; not feasible; not all buildings sustain flood damage
	Elevate roadway	\$100,000+	Costly; can lead to access issues to buildings
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Colson Terrace Study	
Project Number:	2021-Hardyston-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Protect buildings along roadway; allow critical facilities to be accessible
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Township has jurisdiction to implement this project
Fiscal	0	Need grant funding to complete projects
Environmental	1	
Social	0	No social impacts
Administrative	1	The Township has the administrative capabilities to implement this project
Multi-Hazard	1	Flood, Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather
Timeline	1	Within 2 years
Agency Champion	1	
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Update Flood Damage Prevention Ordinance		
Project Number:	2021-Hardyston-009		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the 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.		
Action or Project Intended for Implementation			
Description of the Solution:	The Township will update its flood damage prevention ordinance to meet the New Jersey requirement of two feet for non-critical structures and three feet for all critical structures.		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Meet state standards, reduce future flood risk
Useful Life:	N/A	Goals Met:	1, 2
Estimated Cost:	Minimal - staff time	Mitigation Action Type:	LPR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6 months
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	Township budget, FEMA BRIC
Responsible Organization:	Township Administration, Construction Official	Local Planning Mechanisms to be Used in Implementation if any:	N/A
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Acquire all structures in the floodplain	\$1 million+	Not feasible; loss tax base; not all properties flood
	Update Flood Damage Prevention Ordinance	Staff time	Solution selected
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Update Flood Damage Prevention Ordinance	
Project Number:	2021-Hardyston-009	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Protect buildings located in the floodplain
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Township has jurisdiction to implement this project
Fiscal	1	Funded through municipal budget/staff time
Environmental	0	No environmental impacts
Social	0	No social impacts
Administrative	1	The Township has the administrative capabilities to implement this project
Multi-Hazard	0	Flood
Timeline	1	To be completed within 6 months
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	