



9.3 TOWNSHIP OF ANDOVER

This section presents the jurisdictional annex for the Township of Andover. The annex includes a general overview of the Township of Andover; an assessment of the Township of Andover’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.

9.3.1 Hazard Mitigation Planning Team

The Township of Andover 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 9.3-1. Hazard Mitigation Planning Team

Primary Point of Contact		Alternate Point of Contact
Name / Title: Chief Eric Danielson, Emergency Management Coordinator Address: 134 Newton-Sparta Road, Newton, NJ 07860 Phone Number: (862) 266-1396 Email: edanielson@atpd.org		Name / Title: Ptl. Georgios Laoudis, Deputy Coordinator Address: 134 Newton-Sparta Road, Newton, NJ 07860 Phone Number: (862) 881-6032 Email: glaoudis@atpd.org
NFIP Floodplain Administrator		
Name / Title: Cory Stoner, Township Engineer Address: 17 Plains Road Augusta, NJ 07822 Phone Number: (973) 948-6463 Email: cstoner@hpellow.com		
Name	Title	Method of Participation
Chief Eric Danielson	Emergency Management Coordinator	Primary point of contact, provided information and data for annex development, contributed to mitigation strategy, reviewed the annex
Ptl. Georgios Laoudis	Deputy Coordinator	Alternate point of contact, provided information and data for annex development, contributed to mitigation strategy, attended the kickoff meeting and annex training
Corey Stoner	Township Engineer	NFIP Floodplain Administrator

9.3.2 Jurisdiction Profile

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





According to the U.S. Census, the 2010 population for the Township of Andover was 6,319. The estimated 2018 population was 5,996, a 5.1 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 5.1 percent of the population is 5 years of age or younger and 23.2 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.

9.3.3 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 9.14-2 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 9.3-2. 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	5	0	4	0	4	0	2	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	0	0	0	0	0	0	0	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										
Pace Glass	Commercial	1		1045 Limecrest Road		Nuclear Incident Hazard Area, Carbonate Soil		Construction in progress		
Perona Farms Addition	Commercial	1		350 Andover Sparta Road		Nuclear Incident Hazard Area		Construction in progress		
Darla Enterprises	Commercial	1		40 Newton-Sparta Road		Nuclear Incident Hazard Area, Hazardous Material Hazard Area		Approved by Board		
LAC Realty Corp (AG Pizza)	Commercial	1		131 Newton-Sparta Road		Nuclear Incident Hazard Area		Completed		
Rupa Management LLC	Commercial	1		241 Newton-Sparta Road		Nuclear Incident Hazard Area		Completed		
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None anticipated										

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

9.3.4 Capability Assessment

Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. The Township of Andover 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 legal and regulatory capabilities
- Development and permitting capabilities
- An assessment of fiscal capabilities
- An assessment of education and outreach capabilities
- Information on NFIP compliance
- Classification under various community mitigation programs
- The community’s adaptive capacity for the impacts of climate change

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 Andover 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 Andover and where hazard mitigation has been integrated.

Table 9.3-3. 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	-
<i>Comment:</i>					
<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 • This code follows State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.). 					
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i>					
<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 Land Use Board is responsible for this code in compliance with Chapter 190. 					
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i>					
<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 					



	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.
<p><i>or two dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the board of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivision or site plan pursuant to subsection 63b. of this act . Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 - the board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section.</i></p> <ul style="list-style-type: none"> The Land Use Board is responsible for this ordinance in compliance with Chapter 159. 					
Stormwater Management	Yes	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 DPW is responsible for this ordinance in compliance with Chapter 150. 					
Post-Disaster Recovery	No	-	No	-	-
<p>Comment:</p>					
Real Estate Disclosure	No	State, Division of Consumer Affairs	Yes	No	-
<p>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.</p>					
Growth Management	Yes	Local	Yes – if municipality has a Planning Board	No	-
<p>Comment:</p> <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 Andover Township Planning Board is responsible for these ordinances in compliance with a part of the Master Plan. 					
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	No	-
<p>Comment:</p> <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 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. The Land Use Board is responsible for these requirements in compliance with Chapter 131. 					
Environmental Protection	No	-	No	-	-
<p>Comment:</p>					
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	2021-Andover Township-009
<p>Comment:</p> <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. Chapter 55- Flood Damage Prevention 					



	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.
<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> A. To protect human life and health; B. To minimize expenditure of public money for costly flood control projects; C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; D. To minimize prolonged business interruptions; E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard; F. To help maintain a stable tax base by providing for the alternate use and development of areas of special flood hazard so as to minimize future flood blight areas; G. To ensure that potential buyers are notified that property is in an area of special flood hazard; and H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. The ordinance lacks the state mandated freeboard requirement. 					
Wellhead Protection	No	-	No	-	-
<i>Comment:</i>					
Emergency Management	No	-	No	-	-
<i>Comment:</i>					
Climate Change	No	-	No	-	-
<i>Comment:</i>					
Disaster Recovery Ordinance	No	-	No	-	-
<i>Comment:</i>					
Disaster Reconstruction Ordinance	No	-	No	-	-
<i>Comment:</i>					
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	No	No	-
<i>Comment: The Land Use Board is responsible for these ordinances in compliance with Chapter 150-11.</i>					
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	No	-
<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 commissioners with respect to the formulation of development programs and budgets for capital expenditures. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28 provides the required components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity. The Plan was last reexamined in 2010. The Andover Township Land Use Board is responsible for this plan. 					
Capital Improvement Plan	Yes	Local	No	No	-
<i>Comment: The Andover Township is responsible for this plan in compliance with Resolution.</i>					
Disaster Debris Management Plan	No	-	No	-	2021-Andover Township-008
<i>Comment:</i>					



	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.
Floodplain or Watershed Plan	No	-	No	-	-
Stormwater Management Plan	Yes	Local	Yes	Yes	-
Comment:					
<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 Andover Township and DPW is responsible for this plan in compliance with Chapter 150 Stormwater Management. 					
Stormwater Pollution Prevention Plan	No	-	Yes	-	-
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. The latest rule amendments took effect January 1, 2018. 					
Urban Water Management Plan	No	-	No	-	-
Comment:					
Habitat Conservation Plan	No	-	No	-	-
Comment:					
Economic Development Plan	Yes	Local	No	Yes	-
Comment: The Andover Township is responsible for this plan in compliance with Chapter 3-70 of the Municipal Code.					
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	No	-	No	-	-
Comment:					
Transportation Plan	No	-	No	-	-
Comment:					
Agriculture Plan	No	-	No	-	-
Comment:					
Climate Action Plan	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.
<i>Comment:</i>					
Tourism Plan	No	-	No	-	-
<i>Comment:</i>					
Business Development Plan	No	-	No	-	-
<i>Comment:</i>					
Other: Open Space Plan	Yes	Local	No	No	-
<i>Comment:</i>					
<ul style="list-style-type: none"> The Andover Township is responsible for this plan in compliance with Resolution. 					
Response/Recovery Planning					
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	No	-
<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. The Office of Emergency Management is responsible for this plan. 					
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-
<i>Comment:</i>					
Post-Disaster Recovery Plan	No	-	No	-	-
<i>Comment:</i>					
Continuity of Operations Plan	No	-	No	-	-
<i>Comment:</i>					
Public Health Plan	No	-	No	-	-
<i>Comment:</i>					
Other	No	-	No	-	-
<i>Comment:</i>					
<ul style="list-style-type: none"> 					

Table 9.3-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, The Construction Official grants the permits per Chapter 55 of the Municipal Code
Does your jurisdiction have the ability to track permits by hazard area?	No
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.	No, the 2016 Housing Element & Fair Share Plan stated that the estimated total housing units in 2014 was 2,168 and due to current land use and NJDEP restrictions, any additional development would be limited.

ADMINISTRATIVE AND TECHNICAL CAPABILITY

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





Table 9.3-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Land Use Board
Mitigation Planning Committee	No	-
Environmental Board / Commission	Yes	Environmental Commission
Open Space Board / Committee	Yes	Open space committee
Economic Development Commission / Committee	Yes	Economic Advisory Committee
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Police Dispatch Center
Maintenance program to reduce risk	Yes	AT DPW
Mutual aid agreements	Yes	Police/Fire/EMS/DPW
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Both Twp planner and Twp engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	DCA is Twp construction officials
Planners or engineers with an understanding of natural hazards	Yes	DCA
Staff with training in benefit/cost analysis	No	-
Staff with training in green infrastructure	No	-
Staff with education/knowledge/training in low impact development	No	-
Surveyor	No	Subcontracted as necessary by engineer
Stormwater engineer	No	-
Personnel skilled or trained in GIS applications	No	Refer to Sussex County GIS Dept
Local or state water quality professional	No	-
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	AT OEM
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	No	-
Resilience Officer	No	-
Other: NFIP Floodplain Administrator	Yes	Construction Official (as per Township Code)

FISCAL CAPABILITY

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

Table 9.3-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes





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

EDUCATION AND OUTREACH CAPABILITY

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

Table 9.3-7. 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.	Yes
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, disaster/safety programs in/for schools

COMMUNITY CLASSIFICATIONS

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

Table 9.3-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	Zoning/code enforcement	Unknown
Public Protection (Fire ISO Protection Class)	Yes	5	2014
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	No	-	-

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 9.3-9. 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.

The Township does not have access to resources to determine the possible impacts of climate change upon the municipality. The administration is not currently supportive of integrating climate change in policies or actions.

NATIONAL FLOOD INSURANCE PROGRAM

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

Table 9.3-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Engineering Department
Who is your floodplain administrator? (name, department/position)	Corey Stoner, Township Engineer
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	July 11, 2011. The flood damage prevention ordinance requires update to include the state’s freeboard requirement.
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets the minimum requirements.
When was the most recent Community Assistance Visit or Community Assistance Contact?	November 24, 1987
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.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? -If no, state why.	Yes





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?	The FPA also stated that he would consider attending continuing education and/or certification training on floodplain management if it were offered in the County.
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. The jurisdiction is not interested in joining the CRS program.
How many flood insurance policies are in force in your jurisdiction?*	4 policies
-What is the insurance in force?	\$1,260,000 insurance in force
-What is the premium in force?	\$1,924 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?	\$304 in payments
-What were the total payments for losses?	
Do you maintain a list of properties that have been damaged by flooding?	Yes
Do you maintain a list of property owners interested in flood mitigation?	No

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

ADDITIONAL AREAS OF EXISTING INTEGRATION

- **Township Website:** The Township hosts a municipal website (<https://www.andovertwp.org/>) which includes a municipal directory, announcements, and other community information.

OPPORTUNITIES FOR FUTURE INTEGRATION

- **Incorporate Hazard Mitigation in Budgeting:** The Township will budget for future mitigation projects in both the Township budget and Capital Improvement Budget (2021-Andover Township-003).
- **Resilience Committee and Advisor:** The Township will establish a community resilience committee and advisor (2021-Andover Township-004).
- **Continuity of Operations Plan:** The Township will develop and adopt a Continuity of Operations Plan (2021-Andover Township-005).
- **FireWise Program:** The Township will enroll and maintain status within the FireWise program (2021-Andover Township-006).
- **Hazard Outreach Improvements:** The Township will expand mitigation education and outreach efforts through handouts, newsletters, social media, and the Township website (2021-Andover Township-007).
- **Disaster Debris Management Plan:** The Township will develop and adopt a Disaster Debris Management Plan (2021-Andover Township-008).
- **Flood Damage Prevention Ordinance:** The Township will update the Flood Damage Prevention Ordinance to include freeboard (2021-Andover Township-009).

9.3.5 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 Andover’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 9.14-11 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 9.3-11. 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 .	Although the County was impacted, the Township did not report damages.
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.	The Township was impacted by social distancing and masking requirements.

Source: FEMA 2020, NOAA NCEI 2020

9.3.6 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 Andover 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 Andover 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 Andover has significant exposure.

REPETITIVE FLOOD LOSSES

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

- Number of repetitive loss (RL) properties: 0
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: None have been identified

Source: FEMA 2019

Note: The number of SRL properties excludes RL properties.

CRITICAL FACILITIES

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

Table 9.3-12. Critical Facilities and Lifelines Flood Exposure

Name	Type	Exposure	
		1% Event	0.2% Event
None identified			

Source: Sussex County Planning Partnership 2020





Note:
*Identified lifeline

IDENTIFIED ISSUES AND PROBLEM AREAS

The jurisdiction has identified the following vulnerabilities within their community:

- Stormwater flooding is a problem at Pierce Road.
- Stormwater flooding is a problem at Old Creamery Road & Hemlock Avenue.
- The Township requires funding to fund mitigation projects in house or provide match for grants.
- The Township requires better coordination and staff knowledge on community resilience to inform hazard mitigation planning and project implementation.
- The Township lacks a Continuity of Operations Plan.
- The Township has wildfire risk but is not enrolled in the FireWise program.
- The Township’s outreach on hazard mitigation topics requires expansion.
- The Township lacks a Disaster Debris Management Plan.
- The flood damage prevention ordinance requires update to include the state’s freeboard 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 Andover 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 Andover. The Township of Andover 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 Andover indicated the following reasons why hazard rankings have changed since the 2016 HMP:

- The Township agreed with the calculated hazard rankings.

Table 9.3-13. Township of Andover Hazard Ranking

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

9.3.7 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 9.14-15 and Table 9.14-16 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 9.3-14. 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 #
Andover Twp-1 (LOI; new)	Ensure continuity of operations at critical facilities and municipal buildings. Identified at this time: Install backup generator for critical infrastructure that includes the Township firehouse (shelter), town hall and DPW.	Township and OEM	Complete		
Andover Twp-2 (new)	Pierce Road – stormwater retention basin	Township and Engineer	No Progress	X	2021-Andover Township-001
Andover Twp-3 (new)	Pinkeyville Road – stormwater retention basin	Township and Engineer	Complete		
Andover Twp-4 (new)	Budget for future mitigation projects in both the Township budget and Capital Improvement Budget.	OEM Director and Township Administrator	In Progress	X	2021-Andover Township-003
Andover Twp-5 (new)	Identify critical and essential Township facilities for location in hazard areas; identify mitigation actions to protect these structures from future damage.	OEM Director and Township Administrator	Ongoing Capability through HMP planning process		
Andover Twp-6 (new)	The Township will establish a community resilience committee and advisor.	OEM Director and Township Administrator	No Progress	X	2021-Andover Township-004
Andover Twp-7 (new)	Improve outreach to local schools, colleges and universities; establish relationships; assist with community service and hazard mitigation activities.	OEM Director and Township Administrator	Complete		
Andover Twp-8 (new)	The Township will develop a COOP and it will integrate mitigation.	OEM Director and Township Administrator	No Progress	X	2021-Andover Township-005
Andover Twp-9 (old #3)	Implementation of Fire Wise community program	Township Fire and OEM	In Progress	X	2021-Andover Township-006



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 #
Andover Twp-10 (old #4)	Upgrade roof of Long Pond School to current snow load and high wind standards	Andover Regional Board of Education / OEM	Complete		
Andover Twp-11 (old #5)	Upgrade roof of FMB School to current snow load and high wind standards	Andover Regional Board of Education / OEM	Complete		
Andover Twp-12 (old #6)	Inundation study for Hidden Valley Lake Dam / Bonnie Glen Court	Hidden Valley Lake Association	Complete		
Andover Twp-13 (old #7)	Inundation study for Lake Lenape Dam / Old Creamery Road	Hidden Valley Lake Association	Complete		
Andover Twp-14 (old #8)	Stormwater retention basin – Old Creamery Rd & Hemlock Ave	Township and Engineer	No Progress	X	2021-Andover Township-002
Andover Twp-15 (revised old #9)	Expand mitigation education and outreach efforts through handouts, newsletters, social media, and Township website.	OEM	In Progress	X	2021-Andover Township-007

In addition to the above progress, the Township of Andover 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 Andover 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 Andover 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 9.14-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Andover 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 9.14-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.

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Table 9.3-15. 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-Andover Township -001	Pierce Road Stormwater Retention Basin	Problem: Stormwater flooding is a problem at Pierce Road.	New	Flood, Severe Weather	2	Engineer, Public Works	HMGP, BRIC, Township budget	Reduction in flood risk	High	Within 5 years	High	SIP	SP
		Solution: The Township will design and install a stormwater retention basin on Pierce Road.											
2021-Andover Township -002	Old Creamery Rd & Hemlock Ave Stormwater Retention Basin	Problem: Stormwater flooding is a problem at Old Creamery Road & Hemlock Avenue.	New	Flood, Severe Weather	2	Engineer, Public Works	HMGP, BRIC, Township budget	Reduction in flood risk	High	Within 5 years	High	SIP	SP
		Solution: The Township will design and install a stormwater retention basin on Old Creamery Road & Hemlock Avenue.											
2021-Andover Township -003	Incorporate Hazard Mitigation in Budgeting	Problem: The Township requires funding to fund mitigation projects in house or provide match for grants.	Both	All Hazards	5	OEM Director and Township Administrator	Township budget, Finance Department	Increased financial capability	Medium	1 year	Medium	LPR	PP, SP, PL, NR
		Solution: The Township will budget for future mitigation projects in both the Township budget and Capital Improvement Budget.											
2021-Andover Township -004	Resilience Committee and Advisor	Problem: The Township requires better coordination and staff knowledge on community resilience to inform hazard mitigation planning and project implementation.	Both	All Hazards	1, 2, 3, 4, 5, 6, 7	OEM Director, Township Administrator	Township budget	Increased resilience knowledge and capabilities	High	Within 5 years	Medium	LPR	PR
		Solution: The Township will establish a community resilience committee and advisor.											
2021-Andover Township -005	Continuity of Operations Plan	Problem: The Township lacks a Continuity of Operations Plan.	Existing	All Hazards	3, 5, 6	OEM, Administration	Township budget	Increased emergency capability	Low	1 year	Medium	LPR	ES
		Solution: The Township will develop and adopt a Continuity of Operations Plan.											
2021-Andover Township -006	FireWise Program	Problem: The Township has wildfire risk but is not enrolled in the FireWise program.	Both	Wildfire	1, 2, 3	Township Fire and OEM	Township budget	Increase wildfire protection	Staff time	Within 5 years	Medium	LPR	PP, PR
		Solution: The Township will enroll and maintain status within the FireWise program.											





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-Andover Township -007	Hazard Outreach Improvements	Problem: The Township’s outreach on hazard mitigation topics requires expansion.	N/A	All hazards	4	OEM	Township budget	Educated public	\$1,000	Within 1 year	High	EAP	PI
		Solution: The Township will expand mitigation education and outreach efforts through handouts, newsletters, social media, and the Township website.											
2021-Andover Township -008	Disaster Debris Management Plan	Problem: The Township lacks a Disaster Debris Management Plan.	Existing	All hazards	3, 5, 6	OEM, Public Works	Township budget	Increased disaster capability	Staff time	1 year	High	LPR	ES
		Solution: The Township will develop and adopt a Disaster Debris Management Plan.											
2021-Andover Township -009	Flood Damage Prevention Ordinance Update	Problem: The Township’s Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement. Solution: The Township will update the Flood Damage Prevention Ordinance to include the freeboard requirement.	New	Flood	2	FPA, Administration	Township budget	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
- 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

Potential FEMA HMA Funding Sources:

- FMA Flood Mitigation Assistance Grant Program
- HMGP Hazard Mitigation Grant Program
- BRIC Building Resilient Infrastructure and Communities program

Timeline:

The time required for completion of the project upon implementation

Cost:

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.*

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Table 9.3-16. 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	Total	High / Medium / Low
2021-Andover Township-001	Pierce Road Stormwater Retention Basin	0	1	0	1	1	1	0	1	1	0	1	0	1	1	9	High ▲
2021-Andover Township-002	Old Creamery Rd & Hemlock Ave Stormwater Retention Basin	0	1	0	1	1	1	0	1	1	0	1	0	1	1	9	High
2021-Andover Township-003	Incorporate Hazard Mitigation in Budgeting	0	0	1	1	0	1	1	0	0	0	1	1	1	1	8	Medium
2021-Andover Township-004	Resilience Committee and Advisor	1	1	0	1	1	1	1	1	1	1	1	0	1	1	12	High
2021-Andover Township-005	Continuity of Operations Plan	1	1	1	1	1	1	1	0	1	1	1	1	1	1	13	High
2021-Andover Township-006	FireWise Program	1	1	0	1	1	1	1	1	0	0	0	0	0	1	8	Medium
2021-Andover Township-007	Hazard Outreach Improvements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021-Andover Township-008	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021-Andover Township-009	Flood Damage Prevention Ordinance Update	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	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 9.3-17. 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			X
Disease Outbreak	X		X		X			X
Drought	X		X		X			X
Earthquake	X		X		X			X
Flood	X		X		X	X		X
Geologic	X		X		X			X
Hazardous Materials	X		X		X			X
Hurricane and Tropical Storm	X		X		X			X
Invasive Species	X		X		X			X
Nor'Easter	X		X		X			X
Severe Weather	X		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

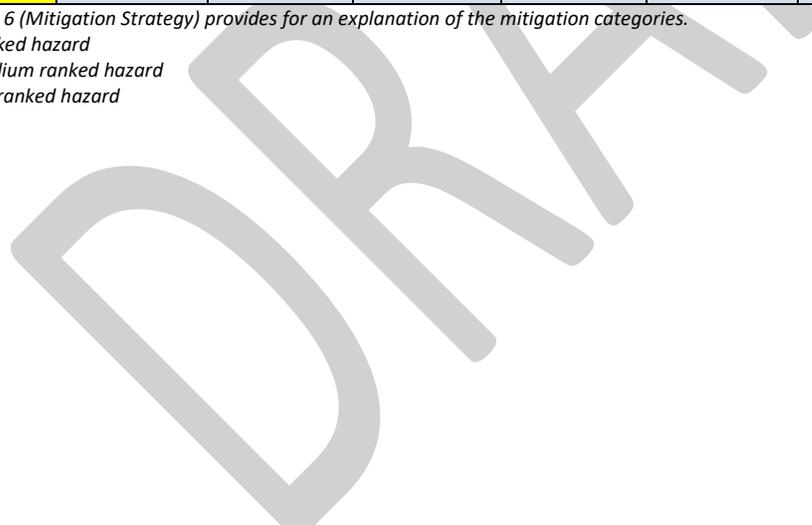




Figure 9.3-1. Township of Andover Hazard Area Extent and Location Map 1

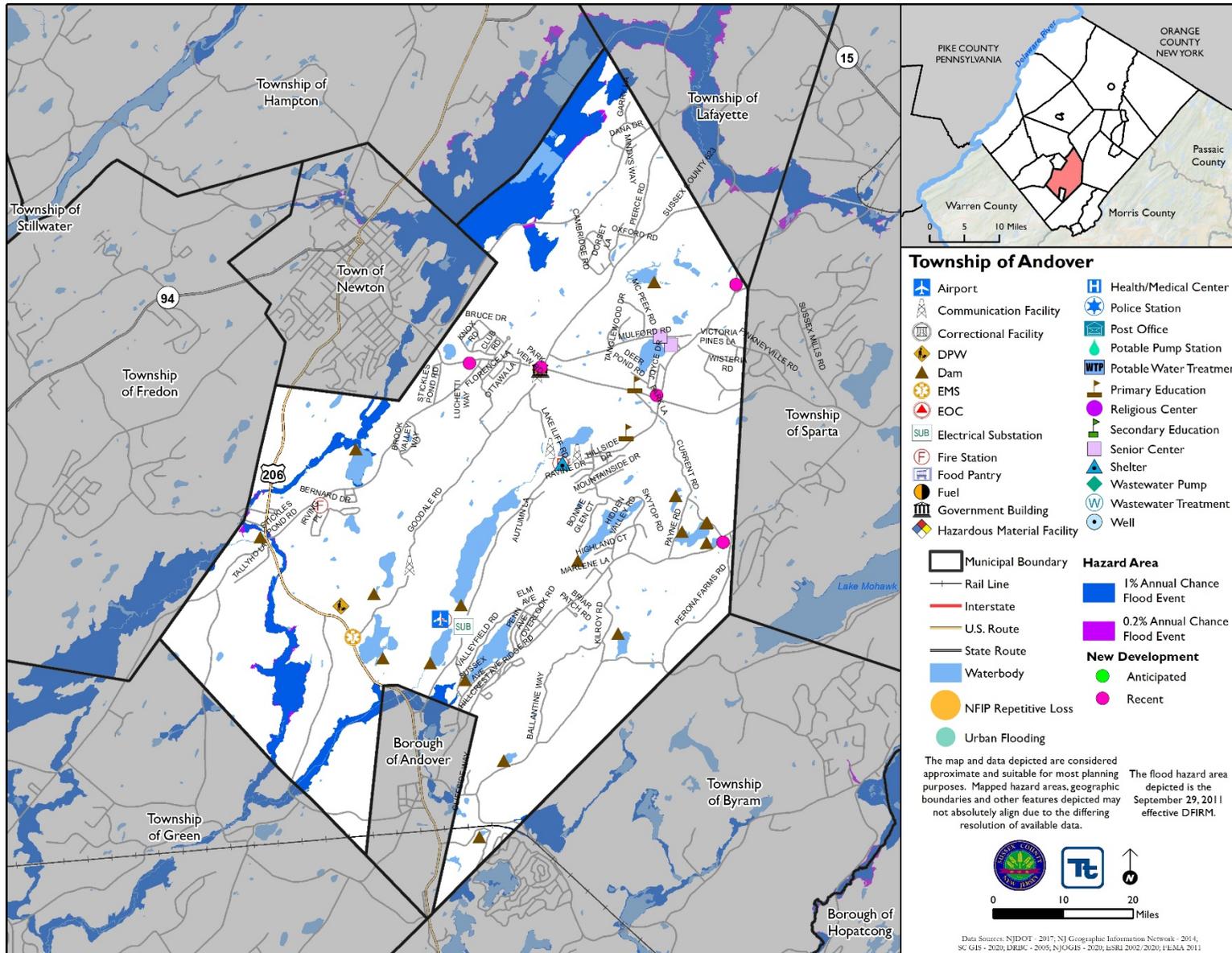




Figure 9.3-2. Township of Andover Hazard Area Extent and Location Map 2

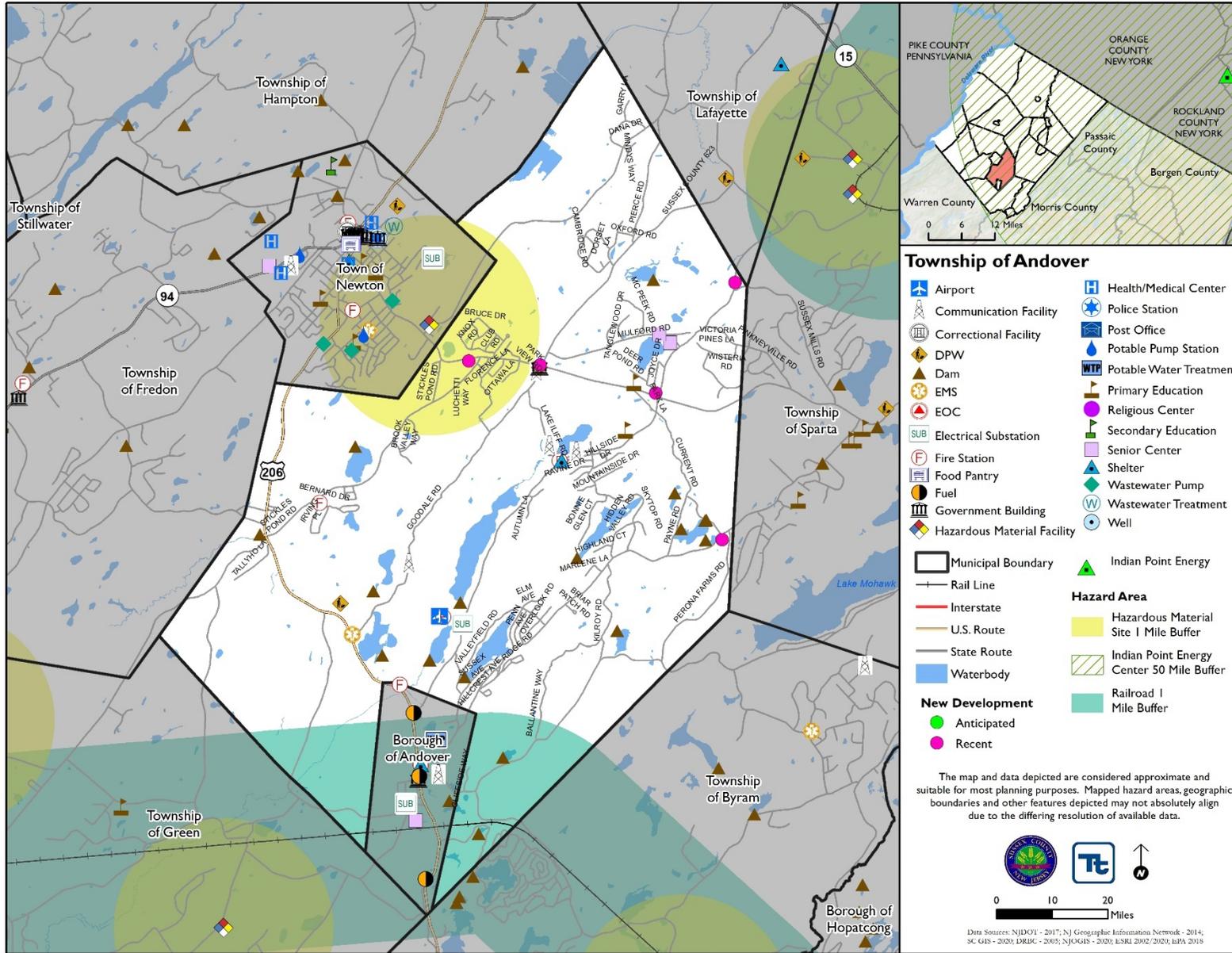
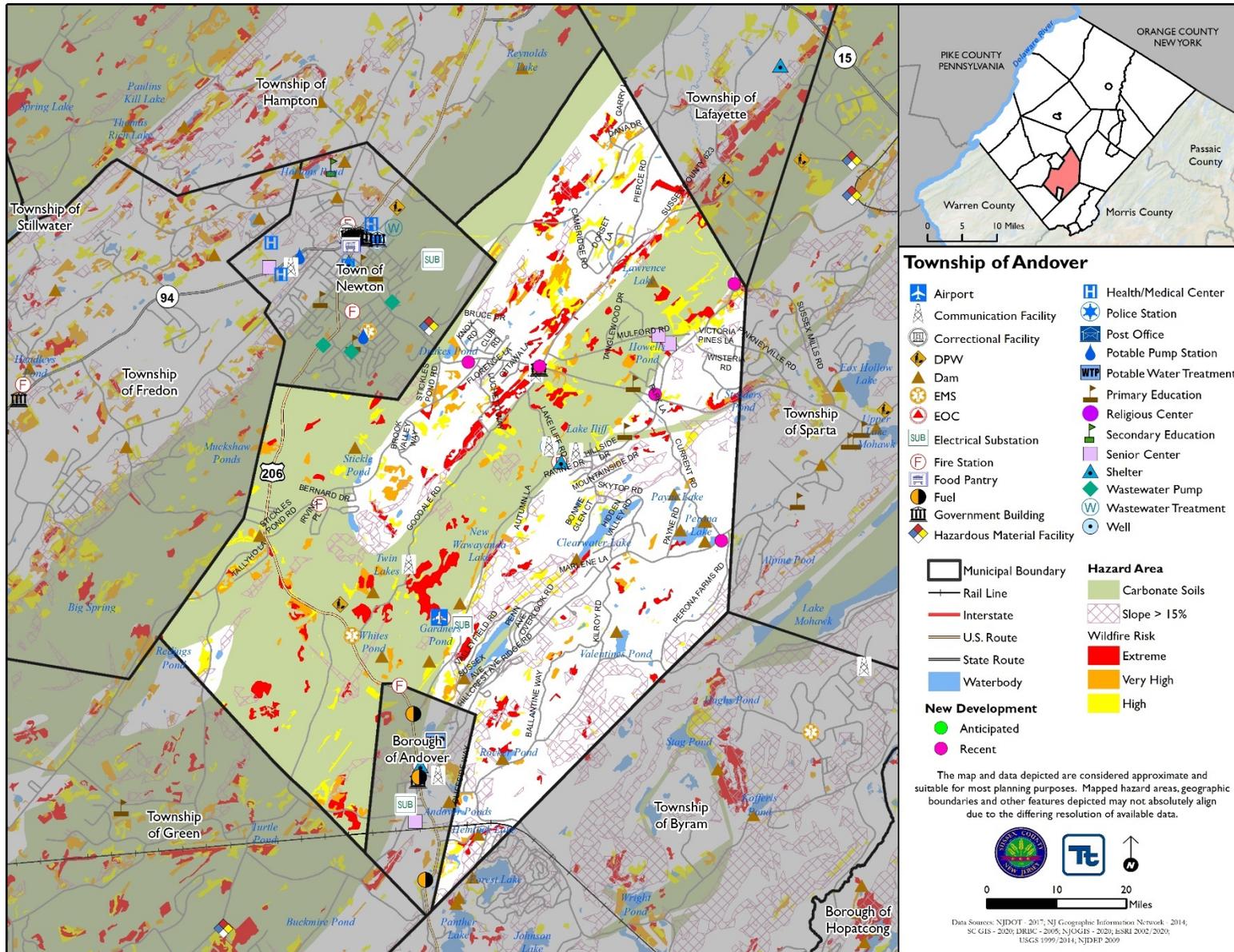




Figure 9.3-3. Township of Andover Hazard Area Extent and Location Map 3

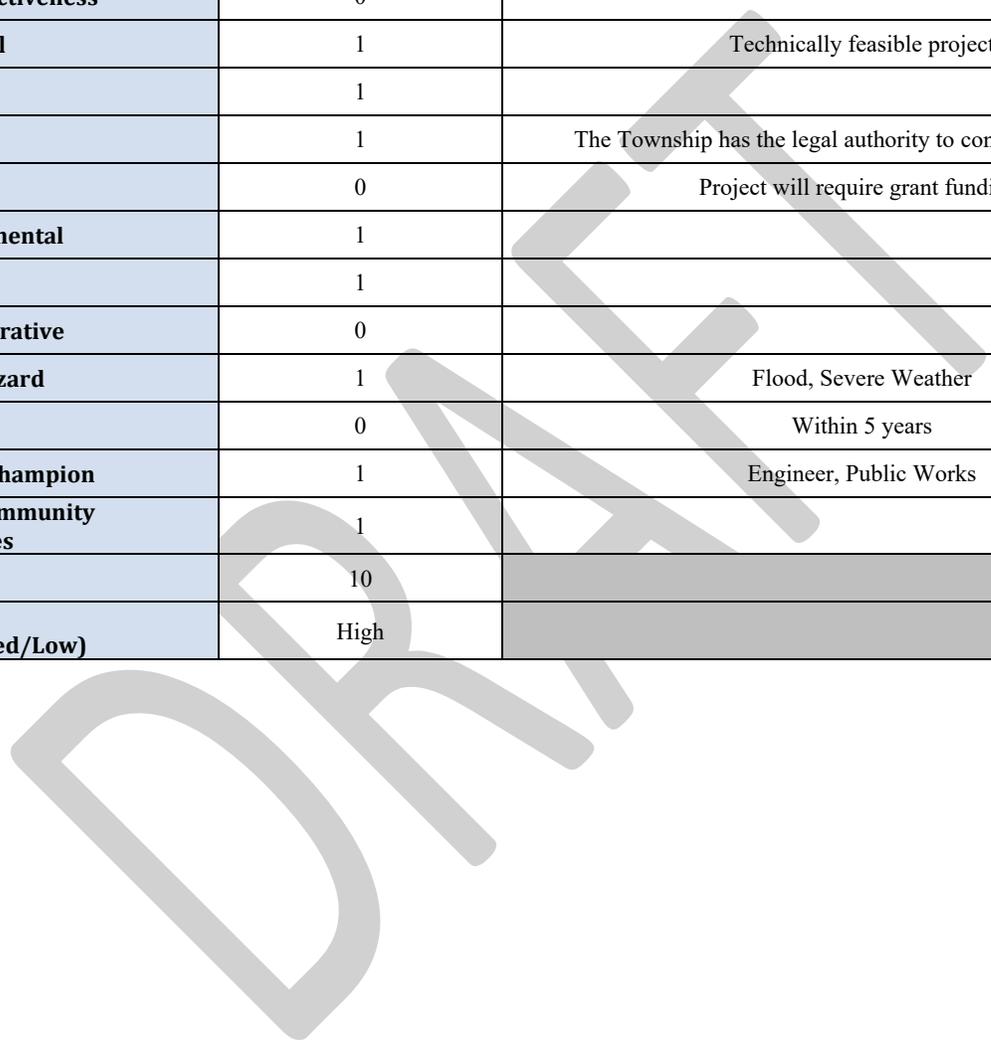




Action Worksheet			
Project Name:	Pierce Road Stormwater Retention Basin		
Project Number:	2021-Andover Township-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather		
Description of the Problem:	Stormwater flooding is a problem at Pierce Road.		
Action or Project Intended for Implementation			
Description of the Solution:	The Township Engineer will design and install a stormwater retention basin on Pierce Road. Public Works will be responsible for upkeep and maintenance of the basin.		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	TBD by design specifications	Estimated Benefits (losses avoided):	Reduction in flood risk
Useful Life:	30 years	Goals Met:	2
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Projects
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	HMGP, BRIC, Township budget
Responsible Organization:	Engineer, Public Works	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation, Stormwater management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate roadway	\$500,000	Costly and may not solve problem
	Relocate roadway	N/A	Not possible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Pierce Road Stormwater Retention Basin	
Project Number:	2021-Andover Township-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Protects roadway from flood damage
Cost-Effectiveness	0	
Technical	1	Technically feasible project
Political	1	
Legal	1	The Township has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	1	
Administrative	0	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	Within 5 years
Agency Champion	1	Engineer, Public Works
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	





Action Worksheet			
Project Name:	Old Creamery Rd & Hemlock Ave Stormwater Retention Basin		
Project Number:	2021-Andover Township-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather		
Description of the Problem:	Stormwater flooding is a problem at Old Creamery Road & Hemlock Avenue.		
Action or Project Intended for Implementation			
Description of the Solution:	The Township Engineer will design and install a stormwater retention basin at Old Creamery Road & Hemlock Avenue. Public Works will be responsible for upkeep and maintenance of the basin.		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	TBD by design specifications	Estimated Benefits (losses avoided):	Reduction in flood risk
Useful Life:	30 years	Goals Met:	2
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Projects
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	HMGP, BRIC, Township budget
Responsible Organization:	Engineer, Public Works	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation, Stormwater management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate roadway	\$500,000	Costly and may not solve problem
	Relocate roadway	N/A	Not possible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Old Creamery Rd & Hemlock Ave Stormwater Retention Basin	
Project Number:	2021-Andover Township-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Protects roadway from flood damage
Cost-Effectiveness	0	
Technical	1	Technically feasible project
Political	1	
Legal	1	The Township has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	1	
Administrative	0	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	Within 5 years
Agency Champion	1	Engineer, Public Works
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	