



9.2 BOROUGH OF ANDOVER

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

9.2.1 Hazard Mitigation Planning Team

The Borough 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 9.2-1. Hazard Mitigation Planning Team

| Primary Point of Contact | | Alternate Point of Contact |
|--|---|--|
| Name / Title: John Hoag, Emergency Management Coordinator Address: 137 Main Street, Andover, NJ 07821 Phone Number: (862) 268-3508 Email: j.hoag@andoverboroughnj.org | | Name / Title: Jessica Casella, Deputy Emergency Management Coordinator Address: 137 Main Street, Andover, NJ 07821 Phone Number: (973) 786-6688 Email: jessiepw@yahoo.com |
| NFIP Floodplain Administrator | | |
| Name / Title: Harold Pellow, Engineer Address: 137 Main Street, Andover, NJ 07821 Phone Number: (973) 948-6463 | | |
| Name | Title | Method of Participation |
| John Hoag | Emergency Management Coordinator | Primary point of contact, attended meetings, provided information and data, contributed to mitigation strategy, reviewed annex draft and provided comments. |
| Jessica Casella | Deputy Emergency Management Coordinator | Alternate point of contact. |
| Harold Pellow | Engineer | NFIP floodplain administrator. |
| Beth Brothman | Borough Clerk | Reviewed draft annex and provided comments. |

9.2.2 Jurisdiction Profile

The Borough of Andover is located in southern Sussex County and bordered to the north, east and west by Andover Township and to the south by Green Township. Andover Junction Brook and Kymer Brook are two bodies of water that flow through the Borough. The Borough has a total area of 1.47 square miles and contains one unincorporated community, Andover Junction.



According to the U.S. Census, the 2010 population for the Borough of Andover was 606. The estimated 2018 population was 594, a 2.0 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 16.7 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.

9.2.3 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 9.2-2 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 9.2-2. 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | | | | | | | | | | |
| None identified | | | | | | | | | | |
| 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

9.2.4 Capability Assessment

Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. The Borough 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 Borough 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 Borough of Andover and where hazard mitigation has been integrated.

Table 9.2-3. 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 | - |
| Comment: <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 Official is responsible for this code in compliance with 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 | - |
| Comment: <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 Department is responsible for this code in compliance with Chapter 134-Zoning. <ul style="list-style-type: none"> The purpose of this chapter is to encourage and promote the most appropriate use and logical development of land throughout the municipality; and therefore, to limit and to restrict and specify distances between the buildings and structures permitted therein, the nature and extent of their use and the nature and extent of the land usages in said districts. | | | | | |
| Subdivisions | Yes | Local | Yes – if municipality has a Planning Board | Yes | - |
| Comment: <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 commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. The Zoning Department is responsible for this ordinance in compliance with Chapter 121- Subdivision of Land. <ul style="list-style-type: none"> The purpose of this chapter shall be to provide rules, regulations and standards to guide land subdivision in the Borough of Andover in order to promote the public health, safety, convenience and general welfare of the Borough. It shall be administered to ensure the orderly growth and development, the conservation, protection and proper use of land and adequate provision for traffic circulation, utilities and services. | | | | | |



| | 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 Management | Yes | Local | Yes | Yes | - |
| Comment: | | | | | |
| <ul style="list-style-type: none"> See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8 The Engineering Department is responsible for this ordinance in compliance with Chapter 115- Stormwater Control. <ul style="list-style-type: none"> It is the purpose of this chapter to establish minimum stormwater management requirements and controls for "major development" | | | | | |
| Post-Disaster Recovery | No | - | No | - | - |
| Comment: | | | | | |
| Real Estate Disclosure | Yes | State, Division of Consumer Affairs | Yes | No | - |
| Comment: | | | | | |
| <ul style="list-style-type: none"> 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 | Local | Yes - if municipality has a Planning Board | Yes | - |
| Comment: | | | | | |
| <ul style="list-style-type: none"> Discussed in Chapter 121: Subdivision of Land. 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. | | | | | |
| 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 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 Planning and Zoning Board is responsible for these requirements in compliance with Andover Borough Code Chapter 109. | | | | | |
| Environmental Protection | Yes | - | No | Yes | - |
| Comment: | | | | | |
| <ul style="list-style-type: none"> Chapter 9 Environmental Commission establishes an Environmental Commission in order to provide for the protection, development and use of natural resources, including water resources. | | | | | |
| Flood Damage Prevention | Yes | State & Local | Yes | No | 2021-Borough of Andover-004 |
| 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. | | | | | |



| | 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"> Chapter 74 Flood Damage Prevention. The Ordinance designates the Engineer as the Floodplain Administrator. The ordinance requires update to include the state mandated freeboard requirement. | | | | | |
| 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)] | No | - | - | - | - |
| <i>Comment:</i> | | | | | |
| Planning Documents | | | | | |
| Comprehensive / Master Plan | Yes | Local | 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 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 Planning Board is responsible for this plan in compliance with Andover Borough Master Plan and NJSA 40:55D-89. | | | | | |
| Capital Improvement Plan | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Disaster Debris Management Plan | No | - | No | - | 2021-Borough of Andover-005 |
| <i>Comment:</i> | | | | | |
| Floodplain or Watershed Plan | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Stormwater Management Plan | Yes | Local | 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 | | | | | |



| | 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>of major development to be located within or to discharge runoff from the major development into a 300-foot riparian zone without prior authorization from the Department under the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13.</i></p> <ul style="list-style-type: none"> <i>The Engineer is responsible for this plan in compliance with Andover Borough Stormwater Management Plan, NJSA 12:5-3, and NJAC 7:8.</i> | | | | | |
| Stormwater Pollution Prevention Plan | No | - | Yes | - | - |
| <p>Comment:</p> <ul style="list-style-type: none"> <i>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.</i> | | | | | |
| 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 | - | - |
| <p>Comment:</p> <ul style="list-style-type: none"> <i>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.</i> | | | | | |
| 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 | - | - |
| Comment: | | | | | |
| Tourism Plan | No | - | No | - | - |
| Comment: | | | | | |
| Business Development Plan | No | - | No | - | - |
| Comment: | | | | | |
| Other: Open Space Plan | Yes | Local | No | Yes | - |
| 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. |
| <ul style="list-style-type: none"> The Open Space department is in compliance with Andover Borough Open Space Plan. | | | | | |
| Response/Recovery Planning | | | | | |
| Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP) | Yes | Local | 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. The Emergency Management department is responsible for this plan, which was adopted in 2014. | | | | | |
| Threat & Hazard Identification & Risk Assessment (THIRA) | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Post-Disaster Recovery Plan | Yes | Local | No | Yes | - |
| <i>Comment:</i> The Emergency Management department is responsible for this plan, which was adopted in 2014. | | | | | |
| Continuity of Operations Plan | Yes | Local | No | Yes | - |
| <i>Comment:</i> The Emergency Management department is responsible for this plan, which was adopted in 2014. | | | | | |
| Public Health Plan | No | - | No | - | - |
| <i>Comment:</i> | | | | | |
| Other | No | - | No | - | - |
| <i>Comment:</i> | | | | | |

Table 9.2-4. Development and Permitting Capability

| Criterion | Response |
|--|--------------------|
| Does your jurisdiction issue development permits? - If no, who does? If yes, which department? | Yes, Borough Clerk |
| 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. | No |

ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Table 9.2-5. Administrative and Technical Capabilities

| Staff/Personnel Resource | Available? | Department/Agency/Position |
|---|------------|----------------------------|
| Administrative Capability | | |
| Planning Board | Yes | Planning/Zoning Board |
| Mitigation Planning Committee | No | - |
| Environmental Board / Commission | No | - |
| Open Space Board / Committee | Yes | Open Space |
| Economic Development Commission / Committee | No | - |



| Staff/Personnel Resource | Available? | Department/Agency/Position |
|---|------------|---|
| Warning Systems / Services (reverse 911, outdoor warning signals) | Yes | Reverse 911, siren at Fire House |
| Maintenance program to reduce risk | No | - |
| Mutual aid agreements | Yes | County, Andover Township, Byram Township and Green Township for fire response |
| Technical/Staffing Capability | | |
| Planners or engineers with knowledge of land development and land management practices | Yes | Professional contract |
| Engineers or professionals trained in building or infrastructure construction practices | Yes | Professional contract |
| Planners or engineers with an understanding of natural hazards | Yes | Professional contract |
| Staff with training in benefit/cost analysis | Yes | Borough Engineer |
| Staff with training in green infrastructure | Yes | Borough Engineer |
| Staff with education/knowledge/training in low impact development | Yes | Borough Engineer |
| Surveyor | Yes | Engineering services |
| Stormwater engineer | No | - |
| Personnel skilled or trained in GIS applications | Yes | Borough Engineer |
| Local or state water quality professional | No | - |
| Scientist familiar with natural hazards in local area | No | - |
| Emergency manager | Yes | Emergency Management Coordinator |
| Watershed planner | No | - |
| Environmental specialist | No | - |
| Grant writers | No | - |
| Resilience Officer | No | - |
| Other: NFIP Floodplain Administrator | Yes | Borough Engineer |
| Other: Professionals trained in conducting damage assessments | Yes | Borough Engineer |

FISCAL CAPABILITY

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

Table 9.2-6. 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 | Yes |
| Incur Debt through General Obligation Bonds | Yes |
| Incur Debt through Special Tax Bonds | No |
| Incur Debt through Private Activity Bonds | No |
| Withhold Public Expenditures in Hazard-Prone Areas | No |
| State-Sponsored Grant Programs | No |
| Development Impact Fees for Homebuyers or Developers | Yes – COAH fees |
| 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 Borough of Andover.

Table 9.2-7. Education and Outreach Capabilities

| Criterion | Response |
|--|--|
| Do you have a public information officer or communications office? | Yes, Town Clerk is responsible for public information. |
| Do you have personnel skilled or trained in website development? | Yes, Town Clerk |
| Do you have hazard mitigation information available on your website? -If yes, briefly describe. | Yes, information is regularly updated on the site. |
| Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe. | Yes, Facebook |
| 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. | Disaster/safety programs are available in local schools. |

COMMUNITY CLASSIFICATIONS

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

Table 9.2-8. Community Classifications

| Program | Participating? | Classification | Date Classified |
|--|----------------|----------------|-----------------|
| Community Rating System | No | - | - |
| Building Code Effectiveness Grading Schedule (BCEGS) | No | - | - |
| Public Protection (Fire ISO Protection Class) | Yes | 7/9 | 1997 |
| Storm Ready Certification | No | - | - |
| Firewise Community Classification | No | - | - |
| Sustainable Jersey | Yes | None | N/A |

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 9.2-9. Adaptive Capacity

| Hazard | Adaptive Capacity (Capabilities) - Strong/Moderate/Weak |
|------------------|---|
| Dam Failure | Dam Failure |
| Disease Outbreak | Disease Outbreak |
| Drought | Drought |



| Hazard | Adaptive Capacity (Capabilities) - Strong/Moderate/Weak |
|------------------------------|---|
| Earthquake | Earthquake |
| Flood | Flood |
| Geologic | Geological Hazards |
| Hazardous Materials | Hazardous Materials |
| Hurricane and Tropical Storm | Hurricane and Tropical Storm |
| Invasive Species | Infestation and Invasive Species |
| Nor’Easter | Nor’Easter |
| Severe Weather | Severe Weather |
| Severe Winter Weather | Severe Winter Weather |
| Wildfire | Wildfire |

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 Borough relies on the County and State for resources to determine the possible impacts of climate change upon the municipality. The administration is 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 9.2-10. National Flood Insurance Program Compliance

| Criterion | Response |
|--|---|
| What local department is responsible for floodplain management? | Engineering |
| Who is your floodplain administrator? (name, department/position) | Harold Pellow, 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? | 2011 |
| Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways? | The program exceeds FEMA and State minimum requirements. |
| When was the most recent Community Assistance Visit or Community Assistance Contact? | Unknown |
| 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 |
| Does your floodplain management staff need any assistance or training to support its floodplain management program? - If so, what type of assistance/training is needed? | The FPA would consider attending continuing education and/or certification training on floodplain management. |
| 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. However, the Borough has considered joining CRS and would consider attending a seminar if offered. |



| Criterion | Response |
|---|------------------------------|
| How many flood insurance policies are in force in your jurisdiction?* | 3 policies |
| -What is the insurance in force? | \$500,000 insurance in force |
| -What is the premium in force? | \$8,130 premium in force |
| How many total loss claims have been filed in your jurisdiction?* | 1 claim |
| -How many claims are still open or were closed without payment? | \$4,314 in payments |
| -What were the total payments for losses? | |
| Do you maintain a list of properties that have been damaged by flooding? | No |
| Do you maintain a list of property owners interested in flood mitigation? | Yes |

*According to FEMA statistics as of October 13, 2020

Reference: FEMA 2020

OPPORTUNITIES FOR FUTURE INTEGRATION

- **Flood Damage Prevention Ordinance:** The Borough will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement. (2021-Borough of Andover-004)
- **Disaster Debris Management Plan:** The Borough will develop a Disaster Debris Management Plan. (2021-Borough of Andover-005)

9.2.5 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 Borough 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 9.2-11 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 9.2-11. 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 Borough did not report impact |
| 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 Borough was subject to municipal office closures and social distancing and masking requirements. |

Source: FEMA 2020, NOAA NCEI 2020

9.2.6 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 Borough 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 Borough 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 Borough of Andover has significant exposure.

REPETITIVE FLOOD LOSSES

The following summarizes the repetitive and severe repetitive flood losses in the Borough 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

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 9.2-12. Critical Facilities and Lifelines Flood Exposure

| Name | Type | Exposure | |
|-----------------|------|----------|------------|
| | | 1% Event | 0.2% Event |
| None identified | | | |

Source: Sussex County Planning Partnership 2020

IDENTIFIED ISSUES AND PROBLEM AREAS

The jurisdiction has identified the following vulnerabilities within their community:

- The Fire House requires backup power.
- The Water Tower requires retrofit and wildfire protection.
- The Borough municipal building’s roof requires higher standards for snow load upon replacement.
- The Flood Damage Prevention Ordinance requires update to include freeboard.
- The Borough lacks a Disaster Debris Management Plan.

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 Borough 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 Borough of Andover. The Borough 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 Borough of Andover indicated the following reasons why hazard rankings have changed since the 2016 HMP:

- The Borough changed the hazard ranking for flood from medium to low, noting a lack of events and exposure.
- The Borough agreed with the remainder of the calculated hazard rankings.

Table 9.2-13. Borough of Andover Hazard Ranking

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

9.2.7 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 9.2-15 and Table 9.2-16 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 9.2-14. 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 Boro-1 (revised old #6) | To ensure continuity of operations, purchase and install generators within the Borough: <ul style="list-style-type: none"> • Municipal water system • Municipal building Shelter | Mayor, Water Department, OEM | Complete | | |
| Andover Boro-2 (new) | Provide information on all types of hazards, preparedness and mitigation, and responses in the Borough newsletter. | Borough | Ongoing Capability, also occurs on webpages, social media, etc. | | |
| Andover Boro-3 (old #1) | Retrofit roof to meet current standards for snow load on Andover Borough Fire Department building located on Route 206. | Station Commander | Complete | | |
| Andover Boro-4 (old #2) | Install 300 yards of berm on Kymer Brooke to protect Andover Borough Fire | DPW Supervisor | No Progress, no longer considered necessary. | | |



| 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 # |
| | Department located on Route 206. | | | | |
| Andover Boro-5 (revised old #6) | When the roof is ready to be replaced on the municipal building, the Borough will incorporate the current snow load standards | Borough | No Progress | X | 2021-Borough of Andover-003 |

In addition to the above progress, the Borough 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 Borough 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 Borough 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 9.2-15 summarizes the comprehensive-range of specific mitigation initiatives the Borough 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 9.2-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.



Table 9.2-15. 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-Borough of Andover-001 | Fire House Backup Power | Problem: Backup power sources are necessary to maintain critical services for critical facilities. The Fire House located on Route 206 lacks a backup power source. This prevents the building from being used as a backup sheltering location. | Existing | Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter | 1 | Fire Department, OEM | FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Assistance to Firefighters Grant Program, Fire Department Budget | Ensures continuity of operations of Fire Department and allows for sheltering | \$75,000 | Within 5 years | High | SIP | ES |
| | | Solution: The Borough and the Fire House will partner to apply for grant funding to purchase and install a 100kW generator and necessary electrical components to supply backup power to the Fire House. Once installed, the Fire Department will be responsible for maintenance. | | | | | | | | | | | |
| 2021-Borough of Andover-002 | Water Tower Retrofit | Problem: The Water Tower requires retrofit to continue to be able to maintain water service. Vegetation around the base of the tower needs to be cleared. | Existing | Drought, Wildfire | 1, 2 | OEM, Engineer | HMGP, BRIC, USDA Community Facilities Grant Program, Borough budget | Ensures continuity of operations of water tower, protects from wildfire impacts | High | Within 3 years | High | SIP, NSP | PP, NR |
| | | Solution: The Borough will complete retrofits and upgrades to the Water Tower. The Borough will clear vegetation around the Tower to prevent overgrowth and lower wildfire risk. | | | | | | | | | | | |
| 2021-Borough of Andover-003 | Borough Municipal Building Retrofit | Problem: The Borough municipal building roof is not designed to withstand current snow load standards. Failure of the roof would result in loss of the primary Borough building and disrupt critical services. | Existing | Severe Winter Weather | 2, 6 | Administration, Engineer | HMGP, BRIC, USDA Community Facilities Grant | Protection of building from damage, maintain | Medium | Within 5 years | High | SIP | PP |



| 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: When the roof is ready to be replaced on the municipal building, the Borough will incorporate the current snow load standards during the design and installation of the replacement roof. | | | | | Program, Borough budget | continuity of operations. | | | | | |
| 2021-Borough of Andover-004 | Flood Damage Prevention Ordinance Update | Problem: The Borough’s Flood Damage Prevention Ordinance lacks language to include the state mandated freeboard requirement. Solution: The Borough will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement. | New | Flood | 2 | Administration | Borough budget | Meet state standards | Staff time | Within 6 months | High | LPR | PR |
| 2021-Borough of Andover-005 | Disaster Debris Management Plan | Problem: The Borough lacks a Disaster Debris Management Plan. Solution: The Borough will develop and adopt a Disaster Debris Management Plan. The Plan will include any necessary mutual aid discussions to supplement the Borough’s capabilities. | N/A | All Hazards | 5 | OEM, Administration | Borough budget | Increased disaster capabilities | Staff time | 2 years | High | LPR | ES |

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.

Table 9.2-16. 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-Borough of Andover-001 | Fire House Backup Power | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 12 | High ⚠ |
| 2021-Borough of Andover-002 | Water Tower Retrofit | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 13 | High |
| 2021-Borough of Andover-003 | Borough Municipal Building Retrofit | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 11 | High |
| 2021-Borough of Andover-004 | Flood Damage Prevention Ordinance Update | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 12 | High |
| 2021-Borough of Andover-005 | Disaster Debris Management Plan | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 13 | 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 9.2-17. 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 |
| Disease Outbreak | | | | | X | | | X |
| Drought | | X | | X | X | | | X |
| Earthquake | | | | | X | | | X |
| Flood | X | | | | X | | | X |
| Geologic | | | | | X | | | X |
| Hazardous Materials | | | | | X | | | X |
| Hurricane and Tropical Storm | | | | | X | | | X |
| Invasive Species | | | | | X | | | X |
| Nor'Easter | | | | | X | | | X |
| Severe Weather | | X | | | X | | | X |
| Severe Winter Weather | | | | | X | | | X |
| Wildfire | | 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 9.2-1. Borough of Andover Hazard Area Extent and Location Map 1

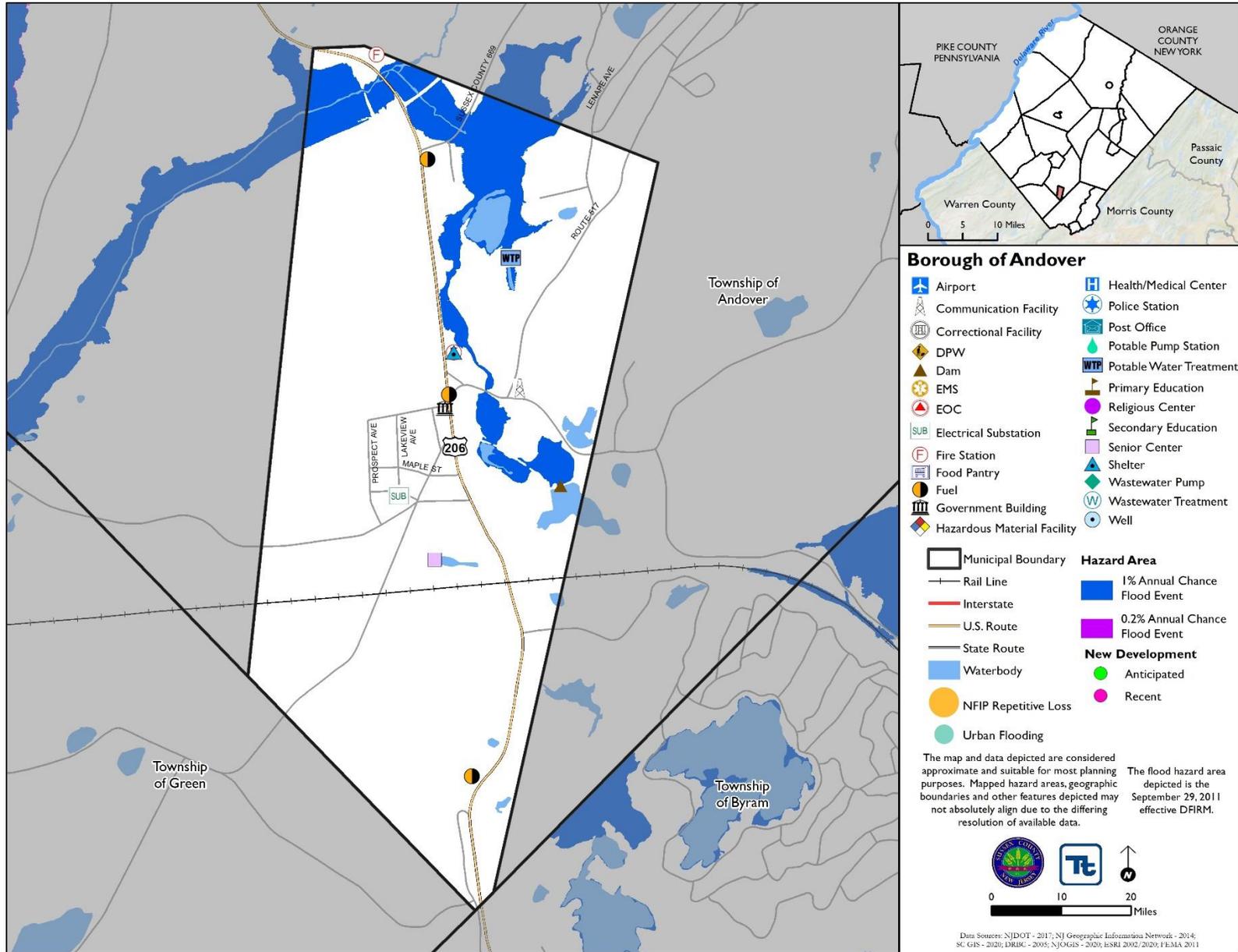




Figure 9.2-2. Borough of Andover Hazard Area Extent and Location Map 2

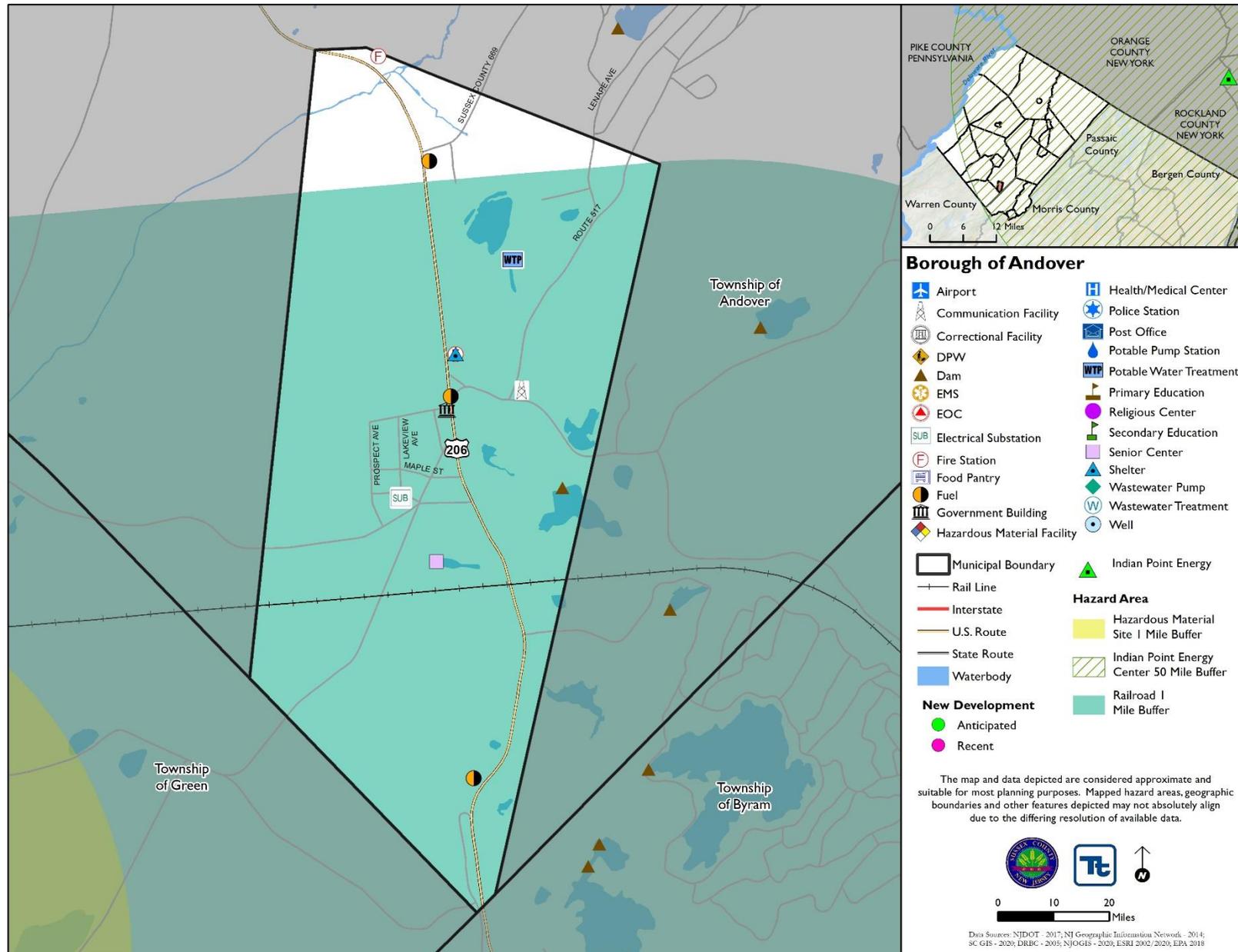
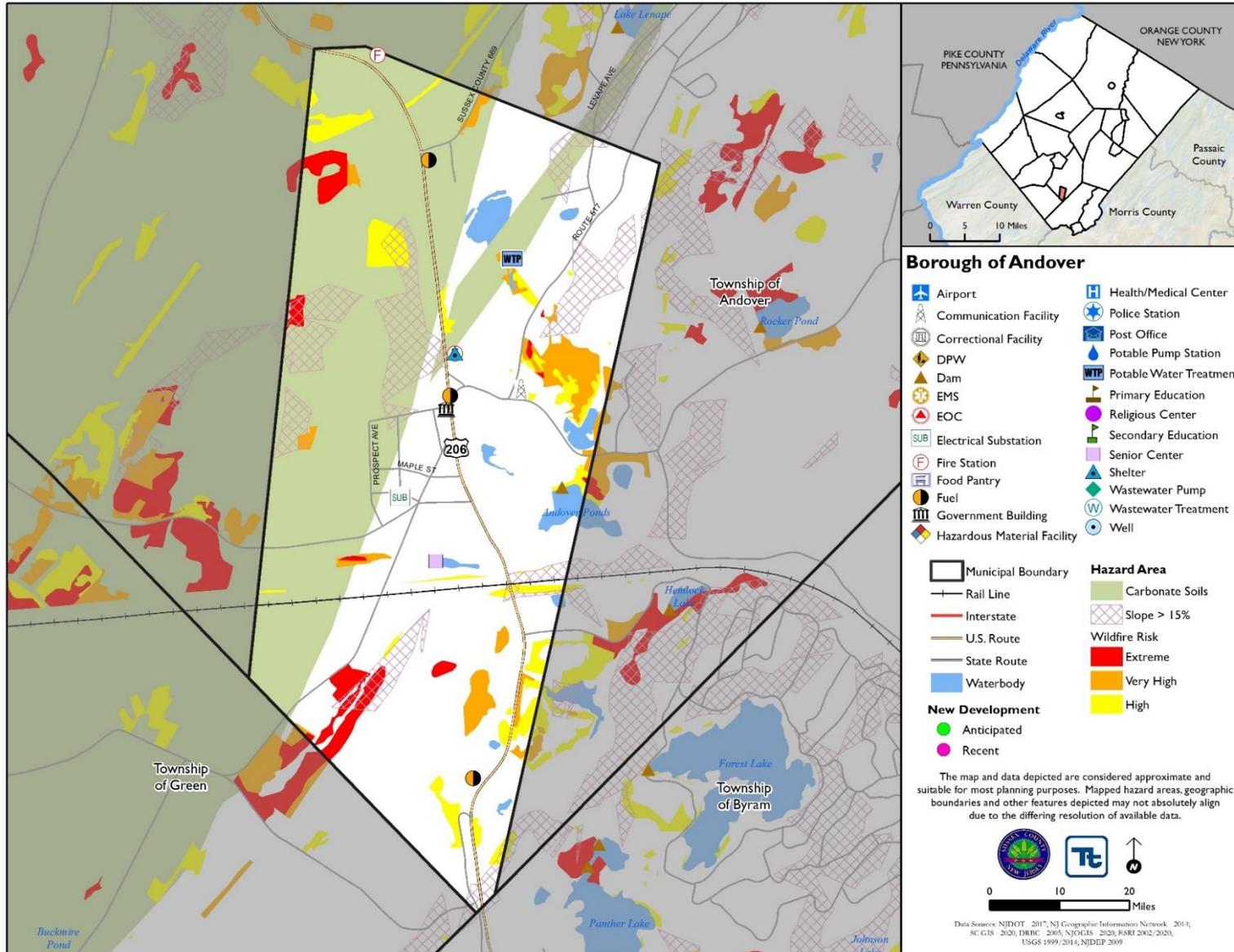




Figure 9.2-3. Borough of Andover Hazard Area Extent and Location Map 3





| Action Worksheet | | | |
|--|---|---|---|
| Project Name: | Fire House Backup Power | | |
| Project Number: | 2021-Borough of Andover-001 | | |
| Risk / Vulnerability | | | |
| Hazard(s) of Concern: | Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter | | |
| Description of the Problem: | Backup power sources are necessary to maintain critical services for critical facilities. The Fire House located on Route 206 lacks a backup power source. This prevents the building from being used as a backup sheltering location. | | |
| Action or Project Intended for Implementation | | | |
| Description of the Solution: | The Borough and the Fire House will partner to apply for grant funding to purchase and install a 100kW generator and necessary electrical components to supply backup power to the Fire House. Once installed, the Fire Department will be responsible for maintenance. | | |
| Is this project related to a Critical Facility? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Level of Protection: | N/A | Estimated Benefits (losses avoided): | Ensures continuity of operations of Fire Department and allows for sheltering |
| Useful Life: | 20 years | Goals Met: | 1, 3 |
| Estimated Cost: | \$75,000 | Mitigation Action Type: | Structure and Infrastructure Projects (SIP) |
| Plan for Implementation | | | |
| Prioritization: | High | Desired Timeframe for Implementation: | Within 5 years |
| Estimated Time Required for Project Implementation: | 1 year | Potential Funding Sources: | FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Assistance to Firefighters Grant Program, Fire Department Budget |
| Responsible Organization: | Fire Department, Borough Administration | Local Planning Mechanisms to be Used in Implementation if any: | Hazard Mitigation, Emergency Management |
| Three Alternatives Considered (including No Action) | | | |
| Alternatives: | Action | Estimated Cost | Evaluation |
| | No Action | \$0 | Problem continues. |
| | Install solar panels | \$100,000 | Weather dependent; need large amount of space for installation; expensive if repairs needed |
| | Install wind turbine | \$100,000 | Weather dependent; poses a threat to wildlife; expensive repairs if needed |
| Progress Report (for plan maintenance) | | | |
| Date of Status Report: | | | |
| Report of Progress: | | | |
| Update Evaluation of the Problem and/or Solution: | | | |



| Action Worksheet | | |
|-----------------------------------|-----------------------------|--|
| Project Name: | Fire House Backup Power | |
| Project Number: | 2021-Borough of Andover-001 | |
| Criteria | Numeric Rank (-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
| Life Safety | 1 | Project will protect critical services of Fire House and allow for sheltering. |
| Property Protection | 1 | Project will protect building from power loss. |
| Cost-Effectiveness | 1 | |
| Technical | 1 | |
| Political | 1 | |
| Legal | 1 | The Borough has the legal authority to complete the project. |
| Fiscal | 0 | Project requires funding support. |
| Environmental | 1 | |
| Social | 1 | |
| Administrative | 1 | |
| Multi-Hazard | 1 | Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter |
| Timeline | 0 | Within 5 years |
| Agency Champion | 1 | Fire Department, Borough Administration |
| Other Community Objectives | 1 | |
| Total | 12 | |
| Priority (High/Med/Low) | High | |



| Action Worksheet | | | |
|--|--|---|---|
| Project Name: | Water Tower Retrofit | | |
| Project Number: | 2021-Borough of Andover-002 | | |
| Risk / Vulnerability | | | |
| Hazard(s) of Concern: | Drought, Wildfire | | |
| Description of the Problem: | The Water Tower requires retrofit to continue to be able to maintain water service. Vegetation around the base of the tower needs to be cleared. | | |
| Action or Project Intended for Implementation | | | |
| Description of the Solution: | The Borough will complete retrofits and upgrades to the Water Tower. The Borough will clear vegetation around the Tower to prevent overgrowth and lower wildfire risk. | | |
| Is this project related to a Critical Facility? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Level of Protection: | Modern standards for water tower design | Estimated Benefits (losses avoided): | Ensures continuity of operations of water tower, protects from wildfire impacts |
| Useful Life: | 20 years | Goals Met: | 1, 2 |
| Estimated Cost: | Medium | Mitigation Action Type: | Structure and Infrastructure Projects (SIP) |
| Plan for Implementation | | | |
| Prioritization: | High | Desired Timeframe for Implementation: | Within 3 years |
| Estimated Time Required for Project Implementation: | 1 year | Potential Funding Sources: | HMGP, BRIC, USDA Community Facilities Grant Program, Borough budget |
| Responsible Organization: | OEM, Engineer | Local Planning Mechanisms to be Used in Implementation if any: | Hazard Mitigation |
| Three Alternatives Considered (including No Action) | | | |
| Alternatives: | Action | Estimated Cost | Evaluation |
| | No Action | \$0 | Problem continues. |
| | Rebuild water tower | High | Costly and not necessary |
| | Build secondary water tower to new standards | High | Costly and not necessary |
| Progress Report (for plan maintenance) | | | |
| Date of Status Report: | | | |
| Report of Progress: | | | |
| Update Evaluation of the Problem and/or Solution: | | | |



| Action Worksheet | | |
|--------------------------------|-----------------------------|--|
| Project Name: | Water Tower Retrofit | |
| Project Number: | 2021-Borough of Andover-002 | |
| Criteria | Numeric Rank (-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
| Life Safety | 1 | Project will protect critical services of water tower and maintain water service |
| Property Protection | 1 | Project will protect water tower from wildfire |
| Cost-Effectiveness | 1 | |
| Technical | 1 | |
| Political | 1 | |
| Legal | 1 | The Borough has the legal authority to complete the project. |
| Fiscal | 0 | Project requires funding support. |
| Environmental | 1 | |
| Social | 1 | |
| Administrative | 1 | |
| Multi-Hazard | 1 | Drought, Wildfire |
| Timeline | 1 | Within 3 years |
| Agency Champion | 1 | OEM, Engineer |
| Other Community Objectives | 1 | Protection of critical services |
| Total | 13 | |
| Priority (High/Med/Low) | High | |



| Action Worksheet | | | |
|--|---|---|---|
| Project Name: | Borough Municipal Building Retrofit | | |
| Project Number: | 2021-Borough of Andover-003 | | |
| Risk / Vulnerability | | | |
| Hazard(s) of Concern: | Severe Winter Weather | | |
| Description of the Problem: | The Borough municipal building roof is not designed to withstand current snow load standards. Failure of the roof would result in loss of the primary Borough building and disrupt critical services. | | |
| Action or Project Intended for Implementation | | | |
| Description of the Solution: | When the roof is ready to be replaced on the municipal building, the Borough will incorporate the current snow load standards during the design and installation of the replacement roof. | | |
| Is this project related to a Critical Facility? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Level of Protection: | Industry snow load standards | Estimated Benefits (losses avoided): | Ensures continuity of operations of municipal building |
| Useful Life: | 20 years | Goals Met: | 2, 6 |
| Estimated Cost: | Medium | Mitigation Action Type: | Structure and Infrastructure Projects (SIP) |
| Plan for Implementation | | | |
| Prioritization: | High | Desired Timeframe for Implementation: | Within 5 years |
| Estimated Time Required for Project Implementation: | 1 year | Potential Funding Sources: | HMGP, BRIC, USDA Community Facilities Grant Program, Borough budget |
| Responsible Organization: | Administration, Engineer | Local Planning Mechanisms to be Used in Implementation if any: | Hazard Mitigation |
| Three Alternatives Considered (including No Action) | | | |
| Alternatives: | Action | Estimated Cost | Evaluation |
| | No Action | \$0 | Problem continues. |
| | Rebuild facility to new standards | High | Costly and not necessary |
| | Build secondary facility protected to new standards | High | Costly and not necessary |
| Progress Report (for plan maintenance) | | | |
| Date of Status Report: | | | |
| Report of Progress: | | | |
| Update Evaluation of the Problem and/or Solution: | | | |



| Action Worksheet | | |
|--------------------------------|-------------------------------------|---|
| Project Name: | Borough Municipal Building Retrofit | |
| Project Number: | 2021-Borough of Andover-003 | |
| Criteria | Numeric Rank (-1, 0, 1) | Provide brief rationale for numeric rank when appropriate |
| Life Safety | 1 | Project will protect critical services of municipal building |
| Property Protection | 1 | Project will protect municipal building from winter storm damage. |
| Cost-Effectiveness | 1 | |
| Technical | 1 | |
| Political | 1 | |
| Legal | 1 | The Borough has the legal authority to complete the project. |
| Fiscal | 0 | Project requires funding support. |
| Environmental | 1 | |
| Social | 1 | |
| Administrative | 1 | |
| Multi-Hazard | 0 | Severe Winter Weather |
| Timeline | 0 | Within 5 years |
| Agency Champion | 1 | Administration, Engineer |
| Other Community Objectives | 1 | Protection of critical services |
| Total | 11 | |
| Priority (High/Med/Low) | High | |