# SUSSEX COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION ACTION PLAN 2021 UPDATE



Volume II

Prepared for:

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MAY 2021

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# SECTION 8. PLANNING PARTNERSHIP

### 2021 HMP Changes

- The 2021 HMP update maintained the two-volume approach with each jurisdiction having an individual annex (Section 9). Enhancements to the annex subsections is described below and in further detail in this section.
  - o Reorganization of information
  - Expanded capability assessment to include integration in the tables and a subsection on adaptive capacity
  - o A streamlined presentation of the hazard ranking
  - o The mitigation of repetitive and severe repetitive flood loss properties is listed
  - o Problem statements are summarized in the updated mitigation strategy table
  - o A subsection dedicated to staff and local stakeholder involvement in annex development

This section provides a description of the Sussex County's HMP update planning partnership, their responsibilities throughout the planning process, and the jurisdictional annexes developed as a result of their plan update efforts.

# 8.1 BACKGROUND

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for hazard mitigation. All participating jurisdictions must meet the requirements of Chapter 44 of the Code of Federal Regulations (44 CFR):

"Multi-jurisdictional plans (e.g., watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan" [Section 201.6a(4)] Members of the Planning Partnership have the expertise to develop the plan and have their jurisdiction's authority to implement the mitigation strategy developed during the planning process. The Planning Partnership is responsible for developing and reviewing draft sections of the plan, updating their respective annex, creating the mitigation strategy for their jurisdiction, and adopting the final plan.

For the Sussex County HMP update, a Planning Partnership

was formed to leverage resources and to meet requirements for the federal Disaster Mitigation Action of 2000 (DMA) for as many eligible governments as possible. Members of the Planning Partnership consisted of representatives from each jurisdiction. The DMA defines a local government as follows:

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

Each participating planning partner has prepared a jurisdictional annex to this plan. These annexes, as well as information on the process by which they were created, are contained in this volume.

# 8.2 INITIAL SOLICITATION AND LETTERS OF INTENT

Sussex County solicited the participation of all municipalities in the County at the commencement of this project. All municipalities interested signed a "Letter of Intent to Participate" committing their participation and





resources to the development of the Sussex County HMP update (Appendix B). Sussex County and all municipalities in the County participated in the update process and have met the minimum requirements of participation as established by the County and Steering Committee.

# 8.3 PLANNING PARTNER EXPECTATIONS

The Steering Committee developed the following list of planning partner expectations, which were outlined in the letter sent by Sussex County DEM to all jurisdictions and confirmed at the kick-off meeting held on August 18, 2020 (see Appendix C [Meeting Documentation] for details):

- Complete administrative tasks:
  - Complete a letter of intent to participate and return to the Sussex County DEM
  - Designate points of contact
- Provide representation at planning partnership meetings;
- Provide information about jurisdictional assets (critical facilities, plans/ordinances, hazard events/damages, new development, etc.) as requested;
- Support public outreach efforts within the jurisdictions, including posting of notices and plan links on websites and local media sources, advertising and supporting public meetings, and supporting outreach to NFIP repetitive loss and severe repetitive loss property owners, where applicable;
- Solicit and encourage the participation of regional agencies, a range of stakeholders, and citizens in the HMP development process;
- Assist with the identification of stakeholders within the jurisdiction that should be informed and potentially involved with the planning process;
- Prepare and submit a jurisdictional annex.
  - Attend mitigation workshop
  - Perform a capability assessment
  - Review the risk assessment
  - Involve local NFIP Floodplain Administrator in the planning process and have them complete the NFIP portion of the annex
  - Review the 2016 mitigation strategies and provide a status of each
  - Identify jurisdiction-specific mitigation strategies to address each of the natural hazards posing a risk to the jurisdiction;
- Review draft plan sections when requested and provide comment and input as appropriate;
- Ensure the HMP update meets the requirements of the DMA 2000, and FEMA and NJOEM guidance;
- Adopt the plan by resolution of local governing body after FEMA conditional approval;
- Provide information regarding progress on identified initiatives as requested by the County Hazard Mitigation Planning Coordinator; and
  - Participate, as able, in additional opportunities:
    - o Attend municipal support meetings
    - Participate in and advertise the public review and comment period prior to adoption.

By adopting this plan, each planning partner also agrees to the plan implementation and maintenance protocol established in Volume I. As described in Volume I, Section 7 (Plan Maintenance) it is intended that the planning partnership remain active beyond the regulatory update to support plan maintenance. Regarding the composition of the Steering Committee and Planning Partnership, it is recognized that individual commitments change over time, and it shall be the responsibility of each jurisdiction and its representatives to inform the HMP Coordinator of any changes in representation.





# 8.4 JURISDICTIONAL ANNEX PREPARATION PROCESS

As in the 2016 HMP, the jurisdictional annexes were maintained and updated for the 2021 HMP. The jurisdictional annexes continue to provide a unique, stand-alone guide to mitigation planning for each jurisdiction. Section 9 (Jurisdictional Annexes) includes an annex for every jurisdiction in Sussex County.

#### **Data Collection**

Each jurisdiction was paired with a contract consultant mitigation planner to work with the primary POC, alternate POC, NFIP Floodplain Administrator and the mitigation team to update their annexes. Each jurisdiction was asked to participate in a municipal kick-off meeting, held on September 10, 2020 to review participant expectations and the updated information needed to support the annex update. It was made clear that the annexes are sections of the plan that can be enhanced if more information is available to further customize any and all aspects of mitigation planning.

A concerted effort was made to have all plan participants document areas of flooding outside of the floodplain, and other 'problem areas' in the County where hazard impacts have occurred in the past and present chronic issues and challenges. This information was captured using an online form (Survey123) to capture the location on a map and description of the problem area.

#### Hazard Ranking Exercise

The presentation of the risk assessment and hazard ranking for each jurisdiction was conducted on October 28, 2020. At this meeting, the consultant presented the overall risk assessment for the hazards of concern and distributed jurisdiction-specific handouts with risk assessment results relevant to each plan participant. In addition, each planning partner was asked to review the ranked hazards specific for its jurisdiction. Refer to Section 4.4 (Hazard Ranking) for the methodology of the hazard ranking process. The calculated ranking was presented to each jurisdiction and they were asked to review the ranking and revise based on history of events, probability of occurrence, and the potential impact on people, property, and the economy. In addition, each jurisdiction was asked to rank their adaptive capacity for each hazard. Refer to Appendix B (Participation Documentation) for the input submitted by each municipality. The objectives of this exercise were to familiarize the partnership with how to use the risk assessment as a tool to support other planning and hazard mitigation processes and to help prioritize types of mitigation actions that should be considered. Hazards that were ranked as "high" for each jurisdiction as a result of this exercise were considered to be priorities for identifying appropriate mitigation actions, although jurisdictions also identified actions to mitigate "medium" or "low" ranked hazards as appropriate.

#### Strengths Weaknesses Obstacles and Opportunities (SWOO) Exercise

The Steering Committee and Planning Partnership were asked to participate in a facilitated SWOO session to identify strengths, weakness or challenges, obstacles and opportunities in hazard mitigation for the County's high-ranked hazards. Then, each jurisdiction was asked to complete a SWOO online form to document strengths, weaknesses, obstacles and opportunities relevant to their jurisdiction for their high-ranked hazards. All SWOO results were compiled and provided as a resource to plan participants at the Mitigation Strategy Workshop in November 2020. Refer to Appendix B (Participation Documentation) which provides the information captured by meeting participants during the SWOO session.

#### **Mitigation Strategy Workshop**

A mitigation strategy workshop was conducted by the contracted planning consultant on November 12, 2020, for all participating jurisdictions to support the development of the updated mitigation strategy. To assist with the identification of implementable and action-oriented mitigation actions, a three-step process was followed for





the 2021 HMP update: 1) Assemble a 'mitigation toolbox'; 2) Identify problem statements through 'mitigation brainstorming' and 3) Update the mitigation action plan. The purpose of this workshop was to guide the planning partnership in completing this portion of the planning process and discuss how projects that are well developed and documented are more quickly identifiable for selection when grants become available.

Electronic problem statement worksheets were developed and distributed to all jurisdictions which detailed detail the problems/challenges/gaps/identified to date, and mitigation alternatives to reduce future risk and address the identified problem. At the workshop the problem statements were reviewed, and the Planning Partnership focused on developing additional statements based on the impacts of hazards in the County and their communities. The results of the updated risk assessment, challenges and opportunities identified during the capability assessment update and SWOO sessions, and information gathered from the citizen survey were used to inform problem statement development. At the workshop, the Planning Partnership heard from the County, NJOEM, and the consultant on how to develop a diverse and detailed mitigation strategy and action worksheets.

These problem statements were intended to provide a detailed description of the problem area, including impacts to the jurisdiction, past damages, and loss of service. These problem statements helped form a bridge between the hazard risk assessment, which quantifies impacts to each community, with the development of achievable mitigation strategies. Each jurisdiction was requested to identify their highest priority mitigation strategy for implementation, of funding was available.

#### **Municipal Support Meetings**

In addition to the municipal kick-off meeting and Planning Partnership meetings, municipal support meetings were held throughout the planning process. At these support meetings, the consultant worked one-on-one with the planning partners to complete their jurisdictional annexes. Each section of the annex was discussed to ensure accuracy and completeness. This included, but not limited to, the following:

- Reviewing the calculated hazard ranking for the jurisdiction and provide input to adjust the ranking as necessary.
- Inspecting the list of critical facilities located in the jurisdiction and their exposure to the 1% flood hazard area. For those critical facilities located in the Special Flood Hazard Area, each jurisdiction was requested to document whether the asset is already mitigated or identify an action to mitigate future flood impacts. By reviewing the list, jurisdictions were able to identify additional mitigation actions related to the critical facilities.
- Identify mitigation initiatives that have reasonable potential to be accomplished within the lifespan of the County HMP (five years), including both FEMA-eligible projects and those projects using funds from non-FEMA sources.

#### **Jurisdictional Annexes**

While the jurisdictional annex format is designed to document and assure local compliance with the DMA 2000 regulations, its greater purpose and function includes:

- Providing a locally relevant synthesis of the overall mitigation plan that can be readily presented, distributed, and maintained;
- Facilitating local understanding of the community's risk to natural hazards;
- Facilitating local understanding of the community's capabilities to manage natural hazard risk, including opportunities to improve those capabilities;
- Facilitating local understanding of the efforts the community has taken, and plans to take, to reduce their natural hazard risk;
- Facilitating the implementation of mitigation strategies, including the development of grant applications;





 Providing a framework by which the community can continue to capture relevant data and information for future plan updates.

It is recognized that each jurisdiction's annex is a "living" document and will continue to be improved as resources permit. As such, its design is intended to promote and accommodate continued efforts to maintain the annex to be current and to improve the effectiveness of the annex as the key tool, reference and guiding document by which the jurisdiction will implement hazard mitigation locally.

The following provides a description of the various elements of the jurisdictional annex.

**Section 9.X.1: Hazard Mitigation Planning Team:** Identifies the hazard mitigation planning primary and alternate(s) contacts and Floodplain Administrators as identified by the jurisdiction, and additional representatives that contributed to the annex update. Further detail is provided in Section 2 (Planning Process), Section 9 (jurisdictional annexes) and Appendix B (Participation Matrix).

Section 9.X.2: Jurisdiction Profile: Provides an overview and profile of the jurisdiction.

**Section 9.X.3: Growth/Development Trends:** Identifies of areas of known and anticipated future development and the vulnerability of those areas to the hazards of concern.

**Section 9.X.4: Capability Assessment:** This subsection provides an inventory and evaluation of the jurisdiction's tools, mechanisms and resources available to support hazard mitigation and natural hazard risk reduction. Within the municipal annexes, tables provide an inventory of the municipality's planning and regulatory, administrative and technical, and fiscal, capabilities, respectively. Further, another table identifies the municipality's level of participation in state and federal programs designed to promote and incentivize local risk reduction efforts. Further information regarding Federal, State and local capabilities may be found in the Capability Assessment portion of Section 5.

- *Adaptive Capacity:* A new addition to the capability assessment is a summary of the jurisdiction's adaptive capacity to each hazard.
- National Flood Insurance Program (NFIP): This subsection documents the NFIP as implemented within the jurisdiction. This summary was based on questions prepared by, and/or interviews conducted with, the NFIP Floodplain Administrators for each NFIP-participating community in the County. This subsection also identifies actions to enhance implementation and enforcement of the NFIP within the community.
- *National Flood Insurance Program (NFIP) Summary:* Provides NFIP summary statistics for the jurisdiction.
- Integration of Hazard Mitigation into Existing and Future Planning Mechanisms: This subsection identifies how the jurisdiction has integrated hazard risk management into their existing planning, regulatory and operational/administrative framework ("integration capabilities"), and/or how they intend to promote this integration ("integration actions"). This is included as a new column in the planning/regulatory table and described in narrative at the end of this subsection.

**Section 9.X.5: Hazard Event History Specific to the Jurisdiction:** Identifies hazard events that have caused significant impacts within the jurisdiction, including a summary characterization of those impacts as identified by the jurisdiction. The documentation of events and losses is critical to supporting the identification and justification of appropriate mitigation actions, including providing critical data for benefit-cost analysis. It is recognized that this "inventory" of events and losses is a work-in-progress, and may continue to be improved as





resources permit. As such, the lack of data or information for a specific event does not necessarily mean that the jurisdiction did not suffer significant losses during that event.

**Section 9.X.6:** Jurisdiction-Specific Vulnerabilities and Hazard Ranking: This subsection provides information regarding each plan participant's vulnerability to the identified hazards. New to the 2020 HMP is a table summarizing the risk assessment results for the jurisdiction. Full data and information on the hazards of concern, the methodology used to develop the vulnerability assessments, and the results of those assessments that serve as the basis of these local risk rankings may be found in Section 4.

- **Repetitive Flood Losses:** A summary of the repetitive and severe repetitive loos properties in the jurisdiction is documented. In addition, the number of properties mitigated has also been documented as recorded by NJOEM.
- Critical Facility and Lifeline Flood Risk: Identifies potential flood losses to critical facilities in the jurisdiction, based on the flood vulnerability assessment process presented in Section 4 (Risk Assessment). If a mitigation action is identified, this is specified in the table.
- Identified Issues: Presents other specific hazard vulnerabilities as identified by the jurisdiction.
- Hazard Extent and Location: Each annex includes a map (or series of maps) illustrating identified hazard zones, critical facilities, and areas of NFIP Repetitive Loss/Severe Repetitive Loss (RL/SRL). Further, these maps show areas of known or anticipated future development, as available and provided by the jurisdiction. These maps may be found at the end of the annex.
- Hazard Risk Ranking: The Sussex County HMP update identifies and characterizes the broad range of hazards that pose risk to the entire planning area; however, each jurisdiction has differing degrees of risk exposure and vulnerability aside from the whole. The local risk ranking serves to identify each jurisdiction's degree of risk to each hazard as it pertains to them, supporting the appropriate selection and prioritization of initiatives that will reduce the highest levels of risk for each community.

**Section 9.X.7: Mitigation Strategy and Prioritization:** This section discusses and provides the status of past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritization.

- Past Mitigation Initiative Status: Where applicable, a review of progress on the jurisdiction's prior mitigation strategy is presented, identifying the disposition of each prior action, project or initiative in the jurisdiction's updated mitigation strategy. Other completed or on-going mitigation activities that were not specifically part of a prior local mitigation strategy may be included in this sub-section as well.
- **Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy:** Other completed or on-going mitigation activities that were not specifically part of a prior local mitigation strategy may be included in this subsection as well.
- Proposed Hazard Mitigation Initiatives for the Plan Update: Table 9.X-16 presents the jurisdiction's updated mitigation strategy. Table 9.X-17 provides a summary of the local mitigation strategy prioritization process discussed in Section 6 (Mitigation Strategy). Table 9.X-18 summarizes the mitigation action types identified by hazard in the jurisdiction.

**Hazard Area Extent and Location Maps:** Each annex includes a series of maps illustrating identified hazard zones and critical facilities. Further, these maps show areas of known or anticipated future development, as available and provided by the jurisdiction.

Action Worksheets: FEMA-eligible mitigation actions, projects and initiatives are further documented on an Action Worksheet which provides details on the project identification, evaluation, prioritization and implementation process.





Additional meetings to complete the jurisdictional annexes were held with the Steering and Planning Committees throughout the planning process. In preparation for the draft plan public review, each jurisdiction was asked to have their 'mitigation team' review their annex to ensure it was complete and accurate for posting to the Sussex County DEM's mitigation website.

In summary, all participating communities and the County completed the planning partner expectations and annex-preparation process. Details regarding these meetings are described further in Sections 2 (Planning Process) and 6 (Mitigation Strategy). Completed jurisdictional annexes are presented in Section 9.

# 8.5 COVERAGE UNDER THE PLAN

All jurisdictions (County and municipalities) met the participation requirements specified by the Steering Committee. Any non-participating local jurisdiction within the Sussex County planning area can "link" to this plan in the future following the linkage procedures defined in Appendix H (Linkage Procedures).

Table 8-1 lists the status of each jurisdiction, whether or not they submitted letters of intent to participate, and their ultimate status in this plan update. Refer to Appendix B (Participation Documentation) and Appendix C (Meeting Documentation) for details on participation and meeting attendance.

Jurisdiction	Letter of Intent to Participate	Attended Workshops and/or Meetings and Project Calls	Provided Update on Past Projects	Submitted Mitigation Actions for Current Plan	Seeking Approval for Adoption (meets all previous requirements)
Sussex County	NA	X	Х	Х	Yes
Andover (B)	Х	X	Х	Х	Yes
Andover (Twp)	Х	X	Х	Х	Yes
Branchville (B)	Х	X	Х	Х	Yes
Byram (Twp)	Х	X	Х	Х	Yes
Frankford (Twp)	Х	X	Х	Х	Yes
Franklin (B)	Х	X	Х	Х	Yes
Fredon (Twp)	Х	X	Х	Х	Yes
Green (Twp)	Х	X	Х	Х	Yes
Hamburg (B)	Х	X	Х	Х	Yes
Hampton (Twp)	Х	X	Х	Х	Yes
Hardyston (Twp)	Х	X	Х	Х	Yes
Hopatcong (B)	Х	X	Х	Х	Yes
Lafayette (Twp)	Х	X	Х	Х	Yes
Montague (Twp)	Х	X	Х	Х	Yes
Newton (T)	Х	X	Х	Х	Yes
Ogdensburg (B)	Х	X	Х	Х	Yes
Sandyston (Twp)	Х	X	Х	Х	Yes
Sparta (Twp)	Х	X	Х	Х	Yes
Stanhope (B)	Х	Х	Х	Х	Yes

#### Table 8-1. Jurisdictional Status





Jurisdiction	Letter of Intent to Participate	Attended Workshops and/or Meetings and Project Calls	Provided Update on Past Projects	Submitted Mitigation Actions for Current Plan	Seeking Approval for Adoption (meets all previous requirements)
Stillwater (Twp)	Х	Х	Х	Х	Yes
Sussex (B)	Х	X	Х	Х	Yes
Vernon (Twp)	Х	Х	Х	Х	Yes
Walpack (Twp)	Х	Х	Х	Х	Yes
Wantage (Twp)	Х	Х	Х	Х	Yes

NA = Not applicable. The Sussex County's DEM is the HMP Coordinator and managed the project and grant and served as Steering Committee chair. A letter of intent to participate was not required for Sussex County.

Workshops and additional meetings (via in person, email and/or teleconference) to complete the jurisdictional annexes were held with the Steering and Planning Committees throughout the planning process. In summary, all participating communities and the County completed the planning partner expectations and annex-preparation process. Details regarding these meetings are described further in Section 2 (Planning Process) and Section 6 (Mitigation Strategy). Completed jurisdictional annexes are presented in Section 9.





# **SECTION 9. JURISDICTIONAL ANNEXES**

Section 201.6.a(4) of Chapter 44 of the Code of Federal Regulations (44CFR) states: "Multi-jurisdictional plans (e.g. watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan." One component of each participating jurisdiction's involvement in the planning process of this HMP was to prepare an annex that focuses specifically on the natural hazards facing their community and the mitigation actions they propose to reduce their exposure and losses to these hazards.

Sussex County and each participating jurisdiction completed an annex that outlines the following information: natural hazard event history, hazard ranking and vulnerability, capabilities, progress on past mitigation actions and an updated mitigation strategy specific to the County or that jurisdiction. Once complete, the County and each participating jurisdiction reviewed and approved their final annex prior to submission to the NJOEM and the FEMA Region 2. Each jurisdiction's annex itself may be found in Sections 9.1 through 9.25.





# 9.1 SUSSEX COUNTY

This section presents the jurisdictional annex for the Sussex County. The annex includes a general overview of the Sussex County; an assessment of the Sussex County'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.

# 9.1.1 Hazard Mitigation Planning Team

Sussex County 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).

Primary Poir	nt of Contact	Alternate Point of Contact
Name / Title: Bob Haffner, Director/Division of         Emergency Management         Address: 135 Morris Turnpike, Newton, New Jersey         07860         Phone Number: (973) 579-0380 x2208         Email: rhaffner@sussexcountysheriff.com         Name		Name / Title: Jennifer Van Der Wende, Corporal/Division of Emergency Management Address: 135 Morris Turnpike, Newton, New Jersey 07860 Phone Number: (973) 579-0380 x2366 Email: jenvanderwende@sussexcountysheriff.com
Name	Title	Method of Participation
Bob Haffner	Division of Emergency Management	Primary point of contact, provided information and data, contributed to mitigation strategy, attended Steering Committee and Planning Partnership meetings; reviewed annex*
Jennifer Van Der Wende, Division of Emergency Management	Division of Emergency Management	Alternate point of contact, provided information and data, contributed to mitigation strategy, attended Steering Committee and Planning Partnership meetings; reviewed annex:
Scott House	County DPW	Provided data and information; contributed to mitigation strategy; reviewed annex*
Autumn Sylvester	Sussex County Division of Planning and Economic Development	Provided data and information, contributed to mitigation strategy, attended Steering Committee and Planning Partnership meetings; reviewed annex*
William J. Koppenaal	Sussex County Engineering Department	Provided data and information, contributed to mitigation strategy, attended Steering Committee and Planning Partnership meetings; reviewed annex*
Tom Drabic	Sussex County Division of Planning	Provided data and information, contributed to mitigation strategy, attended Steering Committee and Planning Partnership meetings
Keith Nelson	Sussex County Facilities	Provided data and information, contributed to mitigation strategy, attended Steering Committee and Planning Partnership meetings; reviewed annex*
Gregory Poff, II	County Administrator	Steering Committee member and attended meetings; reviewed annex*

#### Table 9.1-1. Hazard Mitigation Planning Team





Name	Title	Method of Participation
Elke Yetter	Fiscal/CFO	Reviewed annex*

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.

# 9.1.2 Jurisdiction Profile

Please refer to Section 4, Volume I of this HMP for details on Sussex County's population, location, climate, history, growth and development.

# 9.1.3 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 9.1-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development.

#### Table 9.1-2. 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							
	Building permits are addressed at the local municipal level.						
Property or Development Name	Type of Development	# of Units / Structures	<b>Location</b> (address and/or block and lot)	Known Hazard Zone(s)*	Description / Status of Development		
	Recent Major	r Development an	d Infrastructure f	rom 2015 to Pres	ent		
		None i	dentified				
Know	n or Anticipated Ma	ajor Development	and Infrastructur	e in the Next Fiv	e (5) Years		
Dennis Library	Renovation and addition	1	101 Main St, Newton, NJ 07860	None identified	Planned. Renovation and addition of existing structure		

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

9.1.4 Capability Assessment

Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. The Sussex County 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-today 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 Sussex County 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 Sussex County and where hazard mitigation has been integrated.

		Authority that		been integra	ts of the HMP ated into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
Comment: • State mandated on local level under NJA Adopted 9/3/2019 • Addressed at the local level.	1C 5:23-3.14. Inte	rnational Building Cod		Edition, 2018, NJ	IAC 5:24-3.14
Zoning Code	Yes	State & Local	Yes – if municipality has a Planning Board	Yes	-
Comment: • State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and me • Addressed at the local level.	to have current zo				
Subdivisions	Yes	County & Local	Yes – if municipality has a Planning Board	Yes	2021-Sussex County-009
<ul> <li><i>P.L.</i>1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance rest the filing of such plats with the county recondition for the issuance of a permit foil or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a county by said county planning board an forth and limited hereinafter in this secture.</li> <li>Land Development Standards, 2008. Addu updated. The update could include information.</li> </ul>	equire approval of ecording officer an r any development, xempt from such s the planning boar of this act . Dictate ounty planning boa d for the approva- ion. ministered by the I	subdivision plats by re d approval of site plans except that subdivision ite plan review and app d whenever the board of ed by the Municipal Lan ard shall provide for the of those subdivisions a Planning Board. The La	solution of the p s by resolution of n or individual la rroval; provided f adjustment has nd Use Law. NJ e review of all st iffecting county nd Developmen.	lanning board as f the planning bo ot applications fo that the resolutio ; jurisdiction over Statute 40:27-6.2 ubdivisions of lan road or drainage t Standards are a	a condition for ard as a r detached one on of the board r a subdivision 2 - the board of d within the facilities as set nticipated to be
Stormwater Management	Yes	State & Local	Yes	Yes	2021-Sussex
Comment: • See Title 7 of the NJ Administrative Cod • Land Development Standards, 2008. Add updated. The update could include information Post-Disaster Recovery	ministered by the H				County-009 nticipated to be -

#### Table 9.1-3. Planning, Legal and Regulatory Capability





		Authority that		been integra	ts of the HMP Ited into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment:					
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-
Comment: • N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real improvements, fees for services and ame schools, fire and police, as well as any h	Estate Commission Estate Commission Estate Commission Estate Commission (Commission Estate States) Estate State	on. The POS provides in title and ownership inte	formation such rest being offere	as estimated com	pletion dates for
Growth Management	Yes	Local	nunicipality has a Planning Board	No	-
Comment: • State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make	lineation of Growi	h Areas and Environs;	ement Process vi Use of the endor	sed plans in the i	
Site Plan Review	Yes	County & Local	municipality has a Planning Board	Yes	-
affecting county road or drainage facility		d limited hereinafter in	this section. 40:		that county
	ile of the planning y planning board a l notify the county djoining county r ic lands shown on ast 10 days prior t	d limited hereinafter in and zoning ordinances to copy of the planning a planning board of the in bads or other county lan the county master plan o the public hearing the	this section. 40: of all municipal nd zoning ordinu ntroduction of a nds, or lands lyin a or official coun ereon by persond	27-6.10 In order lities in the count ances of the muni ny revision or an 1g within 200 fee ty map. Such no	that county y, each icipality in effect nendment of t of a municipal tice shall be
affecting county road or drainage facili planning boards shall have a complete f municipal clerk shall file with the count on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publ given to the county planning board at le a copy of the official notice of the public Site Plan Review is the responsibility of	ile of the planning y planning board a notify the county djoining county r ic lands shown on ast 10 days prior t hearing together the Division of Pla	d limited hereinafter in and zoning ordinances a copy of the planning a planning board of the in boads or other county lan the county master plan o the public hearing the with a copy of the prop	this section. 40: of all municipal nd zoning ordinu- ntroduction of a nds, or lands lyin a or official coun- ereon by persona osed ordinance. linances	27-6.10 In order lities in the count ances of the muni ny revision or an 1g within 200 fee ty map. Such no	that county y, each icipality in effect nendment of t of a municipal tice shall be
affecting county road or drainage facility planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or public given to the county planning board at le a copy of the official notice of the public Site Plan Review is the responsibility of Environmental Protection	ile of the planning y planning board a notify the county djoining county r ic lands shown on ast 10 days prior t hearing together	d limited hereinafter in and zoning ordinances a copy of the planning a planning board of the in boads or other county lan the county master plan o the public hearing the with a copy of the prop	this section. 40: of all municipal nd zoning ordinu ntroduction of a nds, or lands lyin a or official coun ereon by persond osed ordinance.	27-6.10 In order lities in the count ances of the muni ny revision or an 1g within 200 fee ty map. Such no	that county y, each icipality in effect nendment of t of a municipal tice shall be
affecting county road or drainage faciliti planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publi given to the county planning board at le a copy of the official notice of the public Site Plan Review is the responsibility of Environmental Protection Comment:	ile of the planning y planning board of notify the county djoining county r ic lands shown on ast 10 days prior t hearing together the Division of Pla No	d limited hereinafter in and zoning ordinances a copy of the planning a planning board of the in oads or other county lan the county master plan o the public hearing the with a copy of the prop- anning & Municipal ord	this section. 40: of all municipal nd zoning ordinu- ntroduction of a nds, or lands lyin a or official coun ereon by persona osed ordinance. linances No	27-6.10 In order lities in the count ances of the muni ny revision or an 1g within 200 fee ty map. Such no 1l delivery or by c	that county y, each icipality in effect nendment of t of a municipal tice shall be
affecting county road or drainage faciliti planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publi given to the county planning board at le a copy of the official notice of the public Site Plan Review is the responsibility of Environmental Protection Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of J floodplain ordinances of each municipan the NFIP requires a floodplain ordinance effective June 20, 2016. • Adopted at the local level	ile of the planning y planning board a notify the county djoining county r ic lands shown on ast 10 days prior t chearing together the Division of Pla No Yes ct (N.J.S.A. 58:16 lood losses. They lity must be review ce. Regulations for	d limited hereinafter in and zoning ordinances a copy of the planning a planning board of the in oads or other county lan the county master plan o the public hearing the with a copy of the prop anning & Municipal ord - State & Local A-52) and the National do not require local ad yed for compliance with	this section. 40: of all municipal nd zoning ordina- ntroduction of a nds, or lands lyin or official coun- ereon by persona osed ordinance. linances No Yes Flood Control A option but as enj these regulation zards Act were a	27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 fee ty map. Such no il delivery or by c - Yes Ct of 1968 (NFIF forced by the NJI as. In addition, p	that county y, each icipality in effect nendment of t of a municipal tice shall be errtified mail of - - 2) are state and DEP, the articipation in
affecting county road or drainage faciliti planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publ given to the county planning board at le a copy of the official notice of the public Site Plan Review is the responsibility of Environmental Protection Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. • Adopted at the local level Wellhead Protection	ile of the planning y planning board a l notify the county djoining county r ic lands shown on ast 10 days prior t the Division of Pla No Yes ct (N.J.S.A. 58:16 lood losses. They lity must be review	d limited hereinafter in and zoning ordinances a copy of the planning a planning board of the in oads or other county lan the county master plan o the public hearing the with a copy of the prop anning & Municipal ord - State & Local A-52) and the National do not require local ad yed for compliance with	this section. 40: of all municipal nd zoning ordinu- ntroduction of a nds, or lands lyin or official coun- ereon by persona osed ordinance. linances No Yes Flood Control A option but as eny these regulation	27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 fee ty map. Such no il delivery or by c - Yes Ct of 1968 (NFIF forced by the NJI as. In addition, p	that county y, each icipality in effect nendment of t of a municipal tice shall be errtified mail of - - 2) are state and DEP, the articipation in
affecting county road or drainage faciliti planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publi given to the county planning board at le a copy of the official notice of the public Site Plan Review is the responsibility of Environmental Protection Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. • Adopted at the local level Wellhead Protection	ile of the planning y planning board a notify the county djoining county r ic lands shown on ast 10 days prior t hearing together the Division of Pla No Yes ct (N.J.S.A. 58:16 lood losses. They lity must be review e. Regulations for No	d limited hereinafter in and zoning ordinances a copy of the planning a planning board of the in oads or other county lai the county master plan o the public hearing the with a copy of the prop- anning & Municipal ord 	this section. 40: of all municipal nd zoning ordina ntroduction of a nds, or lands lyin a or official coun ereon by persona osed ordinance. linances No Yes Flood Control A option but as en, these regulation zards Act were a	27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 fee ty map. Such no Il delivery or by c - Yes Yes Ct of 1968 (NFIF forced by the NJI ts. In addition, p dopted in 2007 a	that county y, each icipality in effect nendment of t of a municipal tice shall be exertified mail of - ) are state and DEP, the articipation in nd amended
affecting county road or drainage faciliti planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or public given to the county planning board at le a copy of the official notice of the public Site Plan Review is the responsibility of Environmental Protection Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. • Adopted at the local level Wellhead Protection Comment: Emergency Management	ile of the planning y planning board a notify the county djoining county r ic lands shown on ast 10 days prior t chearing together the Division of Pla No Yes ct (N.J.S.A. 58:16 lood losses. They lity must be review ce. Regulations for	d limited hereinafter in and zoning ordinances a copy of the planning a planning board of the in oads or other county lai the county master plan o the public hearing the with a copy of the prop- anning & Municipal ord 	this section. 40: of all municipal nd zoning ordina- ntroduction of a nds, or lands lyin or official coun- ereon by persona osed ordinance. linances No Yes Flood Control A option but as enj these regulation zards Act were a	27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 fee ty map. Such no Il delivery or by c - Yes Yes Ct of 1968 (NFIF forced by the NJI ts. In addition, p dopted in 2007 a	that county y, each icipality in effect nendment of t of a municipal tice shall be exertified mail of - ) are state and DEP, the articipation in nd amended
affecting county road or drainage facility         planning boards shall have a complete f         municipal clerk shall file with the county         on the effective date of this act and shall         such an ordinance which affects lands a         boundary, or proposed facilities or publigiven to the county planning board at le         a copy of the official notice of the public         Site Plan Review is the responsibility of         Environmental Protection         Comment:         •         The NJ State Law Flood Area Control A         federal acts to support minimization of J         floodplain ordinances of each municipal         the NFIP requires a floodplain ordinance         effective June 20, 2016.         Adopted at the local level         Wellhead Protection         Comment:         Emergency Management         Comment:	ile of the planning y planning board of notify the county djoining county r ic lands shown on ast 10 days prior t hearing together the Division of Pla No Yes ct (N.J.S.A. 58:16 lood losses. They lity must be review re. Regulations for No No	d limited hereinafter in and zoning ordinances a copy of the planning a planning board of the in oads or other county lai the county master plan o the public hearing the with a copy of the prop- anning & Municipal ord - State & Local A-52) and the National do not require local ad red for compliance with r the Flood Control Has -	this section. 40: of all municipal nd zoning ordina ntroduction of a nds, or lands lyin a or official coun ereon by persona osed ordinance. linances No Yes Flood Control A option but as en, these regulation zards Act were a No	27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 fee ty map. Such no al delivery or by c - Yes Let of 1968 (NFIF forced by the NJI s. In addition, p dopted in 2007 a	that county y, each icipality in effect nendment of t of a municipal tice shall be exertified mail of - ) are state and DEP, the articipation in nd amended
affecting county road or drainage facilitie         planning boards shall have a complete f         municipal clerk shall file with the county         on the effective date of this act and shall         such an ordinance which affects lands a         boundary, or proposed facilities or publig         given to the county planning board at le         a copy of the official notice of the public         • Site Plan Review is the responsibility of         Environmental Protection         Comment:         • The NJ State Law Flood Area Control A         federal acts to support minimization of f         floodplain ordinances of each municipal         the NFIP requires a floodplain ordinance         effective June 20, 2016.         • Adopted at the local level         Wellhead Protection         Comment:         Comment:         • Comment:	ile of the planning y planning board a notify the county djoining county r ic lands shown on ast 10 days prior t hearing together the Division of Pla No Yes ct (N.J.S.A. 58:16 lood losses. They lity must be review e. Regulations for No	d limited hereinafter in and zoning ordinances a copy of the planning a planning board of the in oads or other county lai the county master plan o the public hearing the with a copy of the prop- anning & Municipal ord 	this section. 40: of all municipal nd zoning ordina ntroduction of a nds, or lands lyin a or official coun ereon by persona osed ordinance. linances No Yes Flood Control A option but as en, these regulation zards Act were a	27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 fee ty map. Such no Il delivery or by c - Yes Yes Ct of 1968 (NFIF forced by the NJI ts. In addition, p dopted in 2007 a	that county y, each icipality in effect nendment of t of a municipal tice shall be exertified mail of - ) are state and DEP, the articipation in nd amended
affecting county road or drainage facility         planning boards shall have a complete f         municipal clerk shall file with the county         on the effective date of this act and shall         such an ordinance which affects lands a         boundary, or proposed facilities or publigiven to the county planning board at le         a copy of the official notice of the public         Site Plan Review is the responsibility of         Environmental Protection         Comment:         •         The NJ State Law Flood Area Control A         federal acts to support minimization of J         floodplain ordinances of each municipal         the NFIP requires a floodplain ordinance         effective June 20, 2016.         Adopted at the local level         Wellhead Protection         Comment:         Emergency Management         Comment:	ile of the planning y planning board of notify the county djoining county r ic lands shown on ast 10 days prior t hearing together the Division of Pla No Yes ct (N.J.S.A. 58:16 lood losses. They lity must be review re. Regulations for No No	d limited hereinafter in and zoning ordinances a copy of the planning a planning board of the in oads or other county lai the county master plan o the public hearing the with a copy of the prop- anning & Municipal ord - State & Local A-52) and the National do not require local ad red for compliance with r the Flood Control Has -	this section. 40: of all municipal nd zoning ordina ntroduction of a nds, or lands lyin a or official coun ereon by persona osed ordinance. linances No Yes Flood Control A option but as en, these regulation zards Act were a No	27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 fee ty map. Such no al delivery or by c - Yes Let of 1968 (NFIF forced by the NJI s. In addition, p dopted in 2007 a	that county y, each icipality in effect nendment of t of a municipal tice shall be certified mail of - ) are state and DEP, the articipation in nd amended

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		Authority that	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)		If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:					
Other	No	-	No	-	-
Comment:					
Planning Documents					
Comprehensive / Master Plan	Yes	State, County, & Local	Yes	Yes	-
<ul> <li>the general location and extent of forest water supply, sanitary and drainage fact important to the development of the courd municipalities within the county in any radvise the board of chosen commissioned expenditures. Per State of NJ Municipal Components of a municipal Master Plan Further, all zoning ordinances must be</li> <li>Master Plan Study Report, 2005 Strateg responsibility of the Division of Plannin</li> <li>2016 Open Space Plan. The Plan is the Sussex County Open Space Plan ackno safeguarding water quality and quanti stewardship with a primary focus on pro-</li> </ul>	cilities, or the proto- nty. The county pla matters whatsoeven ers with respect to l Land Use Law (M and requires that consistent with the cic Growth Plan, up g. responsibility of the weledges that the la- ty. The Plan gives	ection of urban develop anning board shall enco which may concern the the formulation of deven (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no odated in draft form 20. The Division of Planning ong-term sustainability s the County the ability	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fi 14 (but not adop – Open Space C of the County's y to analyze pri	other features as eration of the loc county master pl ns and budgets fo 55D-28 provides n and update it ev om a presumption ted). The Plan is committee. The 20 groundwater sup ority lands for p	may be al lan and to r capital the required very 6 years. n of validity. the 116 update to th pply depends o
Capital Improvement Plan	Yes	County	No	Yes	-
Comment:					
Annual Capital Project Requests (Both i			), T	¥7.	
Disaster Debris Management Plan Comment:	Yes	County	No	Yes	-
The Plan identifies two county locations	s for debris collecti	on.			
Floodplain or Watershed Plan	Yes	County	No	Yes	-
Comment:		d D1 1 0D1 1			
Groundwater Manual. The Manual is the			Ĩ		
Stormwater Management Plan Comment:	No	State & Local	Yes	-	-
• The Stormwater Management rules (N.J. the required components of regional and	d municipal storm	vater management plan	s and establish i nd performance	the stormwater ma standards for new	anagement
design and performance standards for n include groundwater recharge, runoff q consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge of major development to be located with without prior arthemistic form the Do	stormwater manag e of stormwater pip e, stormwater runoj hin or to discharge	ement techniques includ es, preserving natural d f quantity control, storr runoff from the major d	ling minimizing Irainage feature nwater runoff qu levelopment into	disturbance, mini s, etc. The rules a uality control, and a 300-foot ripar	nary imizing Ilso set forth I the prohibitio
include groundwater recharge, runoff q consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge of major development to be located with without prior authorization from the De	stormwater manag e of stormwater pip e, stormwater runoj inn or to discharge partment under the	ement techniques includ es, preserving natural d If quantity control, storr runoff from the major d e Flood Hazard Area C	ling minimizing lrainage feature nwater runoff qu levelopment into ontrol Act Rules	disturbance, mini s, etc. The rules a vality control, and o a 300-foot ripar , N.J.A.C. 7:13.	nary imizing Ilso set forth I the prohibitio
include groundwater recharge, runoff q consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge of major development to be located with	stormwater manag e of stormwater pip e, stormwater runoj hin or to discharge	ement techniques includ es, preserving natural d f quantity control, storr runoff from the major d	ling minimizing Irainage feature nwater runoff qu levelopment into	disturbance, mini s, etc. The rules a uality control, and a 300-foot ripar	nary imizing Ilso set forth I the prohibitic



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		Authority that		been integra	s of the HMP ted into your ances/plans?
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will management plan and implementing ord basin cleaning); implementing solids an education component.</li> <li>The County Stormwater Pollution Preve</li> </ul>	such as universiti am establishes the ese sources. The St dlife feeding, prop inance(s); requirin d floatable control	es and hospitals, and St Statewide Basic Requin atewide Basic Requiren er waste disposal, etc.); ng certain maintenance	tate, interstate an rements that mus nents include me the development activities (such a	nd federal agenci st be implemented easures such as: i at of a municipal as street sweepin	es that operate l to reduce the adoption of stormwater g and catch
Urban Water Management Plan	No	-	No	-	-
Comment:					
Habitat Conservation Plan	Yes	County	No	Yes	-
Comment: • Covered under Open Space Plan					
Economic Development Plan	Yes	County	No	No	-
<ul> <li>Comment:         <ul> <li>Target Business and Industry Analysis (Committee.</li> <li>Sussex County Economic Base Assessm Planning, Vision 2020 Economic Strateg</li> </ul> </li> </ul>	ent and Strategic (	•			
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment: • NJ Coastal Area Facility Review Act (N- including construction, relocation, and e structures, and site preparation. This la	enlargement of bui	ldings or structures, an	d excavation, gr	ading, shore proi	ection
Community Wildfire Protection Plan	No	-	No	-	-
Comment:					
Community Forest Management Plan	No	-	No	-	-
Comment:					
Transportation Plan	Yes	County, Local	No	Yes	2021-Sussex County-010
<ul> <li>Comment:</li> <li>Ten-Year Mobility Study (2005), Division of Planning</li> <li>Master Circulation Plan for Transportation (draft, 2016), Division of Planning. The Master Circulation Plan for Transportation is due for an update in the next several years.</li> </ul>					
Agriculture Plan	Yes	Local	No	Yes	2021-Sussex County-008
<ul> <li>Comment:</li> <li>Sussex County Farmland Preservation Plan, last updated in 2008. Update currently underway. Division of Planning – Sussex County Agriculture Development Board</li> <li>The plan is in need of update.</li> </ul>					
Climate Action Plan	No	-	No	-	-
Comment:					
Tourism Plan	Yes	County	No	Yes	2021-Sussex County-008
Comment: <ul> <li>Sussex County Farmland Preservation P</li> <li>Open Space Plan includes trails section.</li> </ul>	lan includes sectio	n on agritourism.			
Business Development Plan	No	-	No	-	-
Comment:					





		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	<b>Do you have</b> <b>this?</b> (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Other	Yes	County	No	Yes	-
Comment: <ul> <li>Open Space and Recreation Plan, 2003.</li> <li>Natural Resources Inventory, n.d., Divis</li> <li>Solid Waste Management Plan, 2013, D</li> </ul>	ion of Planning		ion of Planning	– Open Space Co	mmittee.
Response/Recovery Planning Comprehensive Emergency Management Plan	Yes	County	Yes	Yes	
(CEMP) / Emergency Operations Plan (EOP) Comment:	105	county	105	105	
Emergency Operations Plan responsibil Threat & Hazard Identification & Risk Assessment (THIRA)	ity of the Office of Yes	Emergency Manageme County	nt. Last updated No	<i>12/11/2019. Exp</i> Yes	ires 12/11/2023 -
Comment: Plan in place through OHS&P					
Post-Disaster Recovery Plan	No	_	No	-	-
Comment:					
Continuity of Operations Plan	Yes	County	No	Yes	-
Comment:					
Public Health Plan	Yes	County	No	Yes	-
Comment:					
Other	Yes	County	No	Yes	-
Comment: County works with local municipalities of Traffic Diversion Plans	and provide input	on local dam plans			

• Communication Plan identifies how communication should flow throughout an incident, who is involved, etc.

# Table 9.1-4. Development and Permitting Capability

Criterion	Response	
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Development permits are issued at the local municipal level.	
Does your jurisdiction have the ability to track permits by hazard area?	Development permits are issued at the local municipal level.	
Does your jurisdiction have a buildable lands inventory? -If yes, please describe briefly. -If no, please quantitatively describe the level of buildout in the jurisdiction.	Yes, but in need of update. Was last updated 10 years ago.	

#### ADMINISTRATIVE AND TECHNICAL CAPABILITY

The table below summarizes potential staff and personnel resources available to the Sussex County.

# Table 9.1-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board, Board of Commissioners





Staff/Personnel Resource	Available?	Department/Agency/Position	
Mitigation Planning Committee	Yes	Sussex County Pre-Disaster Mitigation Steering Committee (alternately, Working Group)	
Environmental Board / Commission	Yes	Water Quality Policy Advisory Committee, Soli Waste Advisory Committee, Department of Environmental and Health Services	
Open Space Board / Committee	Yes	Open Space Committee	
Economic Development Commission / Committee	No	Sussex County Economic Development Partnership (SCEDP)	
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	SwiftReach 911	
Maintenance program to reduce risk	Yes	Sussex County DPW installs snow fencing; annually cleans storm drains and inspects storm drains pre- and post-storm events	
Mutual aid agreements	Yes	Intra-County Agreements County Fire Box Alarms Norwest Region (Hunterdon, Somerset, Sussex, Warren) Statewide HazMat County to municipality agreements (MOUs)	
Technical/Staffing Capability			
Planners or engineers with knowledge of land development and land management practices	Yes	Planning Division, Engineering	
Engineers or professionals trained in building or infrastructure construction practices	Yes	Division of Public Works—Office of Roads, Engineering	
Planners or engineers with an understanding of natural hazards	Yes	Department of Engineering and Planning	
Staff with training in benefit/cost analysis	Yes	Sussex County Department of Finance	
Staff with training in green infrastructure	No	-	
Staff with education/knowledge/training in low impact development	Yes	Department of Engineering and Planning – Division of Engineering	
Surveyor	Yes	Department of Engineering and Planning – Division of Engineering	
Stormwater engineer	Yes	Planning and Engineering	
Personnel skilled or trained in GIS applications	Yes	Office of GIS Management	
Local or state water quality professional	Yes	Director of Division Planning and Economic Development	
Scientist familiar with natural hazards in local area	No	-	
Emergency manager	Yes	Sherriff's Office—Office of Emergency Management	
Watershed planner	No	-	
Environmental specialist	No	Use outside consultant where necessary	
Grant writers	Yes	Planning Division	
Resilience Officer	No	-	
Other	No	-	

#### FISCAL CAPABILITY

The table below summarizes financial resources available to the Sussex County.

#### **Table 9.1-6. Fiscal Capabilities**

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital Improvements Project Funding	Yes





Financial Resource	Accessible or Eligible to Use?
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	No
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	No
Clean Water Act 319 Grants (Nonpoint Source Pollution)	Yes
Other	No

#### EDUCATION AND OUTREACH CAPABILITY

The table below summarizes the education and outreach resources available to the Sussex County.

#### Table 9.1-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	County Administrator is PIO. OEM has an incident management team and there is a PIO for the Sheriff's Office
Do you have personnel skilled or trained in website development?	Yes, and outside web master can be utilized for major changes as well.
Do you have hazard mitigation information available on your website?	Yes, the County of Sussex webpage posts Pre-Disaster Mitigation Information as well as the current and prior
-If yes, briefly describe.	HMP and contact information
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.	CERT teams discuss preparedness

#### **COMMUNITY CLASSIFICATIONS**

The table below summarizes the classifications for community programs available to the Sussex County.

#### Table 9.1-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	N/A	-	-
Public Protection (Fire ISO Protection Class)	N/A	-	-
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.

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

#### Table 9.1-9. Adaptive Capacity

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 County has access to resources to determine the possible impacts of climate change through NOAA and NJ DEP and staff keep up on academic updates. The 2016 update to the Sussex County Open Space Plan acknowledges that the long-term sustainability of the County's groundwater supply depends on safeguarding water quality and quantity. The Plan gives the County the ability to analyze priority lands for preservation and stewardship with a primary focus on properties that support the water resources integral to the county.

#### NATIONAL FLOOD INSURANCE PROGRAM

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

#### Table 9.1-10. National Flood Insurance Program Compliance

Criterion	Response
Floodplain administration is administered at the local municipa	l level in the County.
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	271 policies
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	167 claims \$1,729,080

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





#### Additional Areas of Existing Integration

- Board of Chosen Commissioners: The Board of Chosen Commissioners serves as the top governing body in Sussex County. They approve major initiatives, capital improvement spending, and other high level decisions for the County. Additionally, the Board sets policies for five major departments in the county—Department of Central and Shared Services, Department of Engineering and Planning, Department of Environmental and Public Health Services, Department of Finance and Library Services, and Department of Human Services—as well as the 12 Divisions and other boards, commissions, authorities, and committees in the county. The Commissioners are supported in their duties by the County Administrator. The Board of Chosen Commissioners reviews information from county Engineering, DPW, and Planning Division to determine project priorities and release capital improvement funding. These projects include addressing roads that experience frequent flooding (i.e., roadway design and drainage improvements) or are otherwise vulnerable to disasters and hazards.
- Radiological Program: Sussex County participates in New Jersey's Radiological Program, per NJOEM's Radiological Program Guidelines, and shared appropriate informational pamphlets with residents on the Sherriff's Office website. Sussex County OEM is privy to hazardous materials (HazMat) and capabilities for response if needed.
- Stormwater Clearing: Per NJDEP requirements, the County DPW cleans catch basins each year and cleans in-let and outlets as needed or requested. If fall rains are forecasted, DPW makes sure the catch basins are clear and open; the county also marks the catch basins in the fall to identify their locations for the winter months. These activities are coordinated between DPW and Engineering on a daily basis, facilitated by both departments having the same administrator.
- Hazardous Materials: The County Right to Know Coordinator maintains effective coordination and information sharing related to hazardous material sites with NJOEM and the Right to Know Network. The Sussex County HAZMAT team integrates data about hazardous materials with most current available information about other risk factors, e.g. population, climate, other site-specific characteristics.
- Outside Partnerships and Stakeholders: The Department of Engineering and Planning, and other relevant departments maintain relationships with the U.S. Army Corps of Engineers (USACE) and Rutgers University, along with other important regional stakeholders. These relationships help provide the county with technical information and/or assistance in the identification of hazard areas and risk assessments.
- Floodplain Management: Sussex County DEM and the Planning Division encourage compliance with floodplain management as it relates to new and existing construction by integrating hazard mitigation practices with zoning, subdivision ordinances, comprehensive planning, and other land use tools at the municipal level.
- Office of GIS Management: Sussex County maintains an Office of GIS Management, which provides
  multiple helpful links to residents, including the map applications for bridge and road closures,
  government services, and West Nile Virus surveillance. It also has prebuilt maps on property parcels,
  polling locations, watershed boundary (HUC 11), active storm paths, bedrock geology, wetlands, aerial
  photography, floodplains, and sewer service areas.
- Operating Budget: The County's operating budget contains provisions for necessary capital and infrastructure projects, as well as public safety and mitigation initiatives. In the 2015 budget, Sussex County identified \$315,116 to be allocated to emergency management (about \$8,000 more than was allocated in the 2014 budget). Sussex County also funds other departments involved in mitigation, such as public health, planning, and public works.





- **Outside Funding:** While much of the County's revenue comes from taxes and other fees, part of its revenue is grant-related or received through State Aid. This includes funding from the State Homeland Security Grant Program, Emergency Management Agency Assistance, funding from the NJ Department of Law and Public Safety for the HMP Update, and other relevant programs. Sussex County also participates in regional or multi-county grant funding opportunities, as needs dictate and opportunities arise.
- Capital Projects: The County Capital Budget Request is the vehicle that county departments use to undertake various projects, including mitigation, stormwater management, and drainage enhancements. The 2015 Sussex County budget provides detailed and summary versions of its Capital Budget Request; the detailed version groups projects by relevant departments and categories. Projects of interest include road and bridge enhancements, stormwater improvements, fire security systems upgrades, and security upgrades.
- Alert Programs: The Sussex County DEM also oversees two community alert programs—Swift911
  and Register Ready. Swift 911 enables the County to provide residents with critical information during
  hazard events. Residents can select to be notified by phone, e-mail, text message, hearing impaired
  devices, and more. Register Ready is a statewide program to ensure individuals with disabilities or who
  may need extra assistance can receive help or advance notification of an impending hazard event.

#### **OPPORTUNITIES FOR FUTURE INTEGRATION**

- **FEMA HMA Informational Workshops:** The County will expand offerings and incorporate information on BRIC at an annual workshop related to the FEMA HMA grant programs (HMGP, BRIC, FMA). This may be done at quarterly OEM coordinator meetings and invite other County departments (2021-Sussex County-005).
- Update Farmland Preservation Plan: The County will update the Farmland Preservation Plan and include resiliency planning to address long term risk (2021-Sussex County-008).
- Update Land Development Standards: The County will update the Land Development Standards. The update will include discussion on green technologies and BMP's for stormwater (2021-Sussex County-009).
- Master Circulation Plan for Transportation Update: The County will update the Master Circulation Plan for Transportation, using information from the Hazard Mitigation Plan to identify and reduce risk to the transportation system and maintain emergency access (2021-Sussex County-010).
- Adopt the Wastewater Management Plan: The County's Wastewater Management Plan is currently in draft form. Prior to adoption, the County will use information from the Hazard Mitigation Plan to make updates to reduce risk to the wastewater management system (2021-Sussex County-011).

# 9.1.5 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 Sussex County'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 9.1-11 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.





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 <sup>rd</sup> and 24th.	Utility issues, road closures
March 3-4, 2019	Snowstorm     Up to 8 inches of snow fell in portions of the County. Some areas also experienced freezing rain.		March 2019 snowstorm. Utility issues, road closures, downed trees.	
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.	Education, procurement of PPE, setting up testing sites, tracking
August 4, 2020	Tropical Storm Isaias (declaration number pending)	Yes	Tropical Storm Isaias brought heavy rain to western New Jersey. Rainfall totals were as high as 3 to 5.5 inches. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Reached damage threshold and applying for a declaration. Downed trees, power outages, road closures.

Table 9.1-11. Hazard Event History

Source: FEMA 2020, NOAA NCEI 2020

# 9.1.6 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 Sussex County 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 Sussex County 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 Sussex County has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

The following summarizes the repetitive and severe repetitive flood losses in the Sussex County.

- Number of repetitive loss (RL) properties: 16
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

Source: FEMA 2019. Data is as of September 30, 2019. Note: The number of SRL properties excludes RL properties.





#### **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 9.1-12. Critical Facilities and Lifelines Flood Exposure

		osure								
Name	Туре	1% Event 0.2% Eve								
	County are identified in the local scussed in the County Profile (S	-	es in Section 9							

Source: Sussex County Planning Partnership 2020 Note: \*Identified lifeline

#### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- Additional sheltering locations are needed to meet the County's sheltering needs.
- Warming centers need to be established in new locations to expand offerings of warming and cooling centers and maintain access for at risk communities.
- DPW is responsible for much work in County areas to conduct tree trimming and emergency tree removal. The DPW lacks a 70-foot tree truck and a stump grinder.
- The Department of Public Works building does not have a roof that meets current standards for snow load. Failure of the roof could lead to a reduction in critical services by DPW before, during, and after hazard events.
- With the advent of new information on how to apply for hazard mitigation funding support and new programs for funding support, additional education is needed for County staff and municipal staff on FEMA HMA grant programs.
- Wildfire preparedness by the public is lacking.
- Frequent flooding events have resulted in damages to residential properties. These properties have been
  repetitively flooded as documented by paid NFIP claims. The County has 16 repetitive loss properties,
  but other properties may be impacted by flooding as well.
- The Farmland Preservation Plan was last updated in 2008. A new update is needed which would incorporate more information on hazard mitigation.
- The County's Land Development Standards have not been updated since 2008.
- The Master Circulation Plan for Transportation requires update.
- The County Wastewater Management Plan is currently in draft form and requires adoption.

#### 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 Sussex County 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 Sussex County. The Sussex County 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 Sussex County agreed with the calculated hazard rankings.

Dam Failure	Disease Outbreak	k Drought Earthquake		Flood	Geologic			
Medium	Medium	Medium	Low		Low		Medium	Medium
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter		Severe Yere Winter Ather Weather	Wildfire		
High	High	High	High	Hi	gh High	Medium		

#### Table 9.1-13. Sussex County Hazard Ranking

# 9.1.7 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 9.1-15 and Table 9.1-16 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 9.1-14. Status of Previous HMP Mitigation Actions

			Status (In Progress, No		the 2021 HMP odate?
201	6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Sussex County- 1 (new)	Ensure continuity of operations at critical facilities and county- owned buildings. The following project was identified at this time: Secure a generator for the Sheriff's Office.	Sheriff's Office, SCDEM	Complete		
Sussex County- 2 (revised old 4.B.2)	Incorporate hazard mitigation considerations and priorities into various County Plan updates, and integrate the County Master Plan with the County HMP during the Master Plan Update.	SCDEM, Planning Division	Ongoing Capability		
Sussex County- 3 (new)	Design and implement a mitigation awareness campaign through County Planning or Rutgers Extension to Farms/Tree Farms regarding the ingestion pathway response for the radiological hazard.	SCDEM, Planning Division, Rutgers Extension	Ongoing Capability		





			Status (In Progress, No		the 2021 HMP odate?
201	6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Sussex County- 4 (revised old 1.A.2)	Coordinate with the Sussex County College FM Radio Station to disseminate preparedness information.	SCDEM, Sussex County College	Ongoing Capability		
Sussex County- 5 (new)	Increase County capabilities to address tree and roadway maintenance, response and removal, and continuity of operations and purchase a new tree truck (70-feet, chipper box), updated stump grinder, and excavator.	DPW	In Progress: Added fourth person to tree crew. Purchased new 65 feet tree truck and excavator. DPW still needs a 70 foot tree truck and a stump grinder.	X	2021-Sussex County-003
Sussex County- 6 (new)	Support continuity of operations at County buildings including the purchase and installation of generators including the Office of Bridges and Traffic, replace a generator at the Andover Garage/OEM warehouse, new generators new warming locations (libraries), shelters (Vo Tech)	Facilities Department	In Progress. Warming stations need to be updated to new locations. Additional shelters still needed. Andover Garage is complete. Office of Emergency Management near completion.	X	2021-Sussex County-001, 2021-Sussex County-002, 2021-Sussex County-016
Sussex County- 7 (old County Facilities 1)	Retrofit roof to meet current standards for snow load on County Department of Public Works building located on Route 206.	Facilities Department	No Progress	X	2021-Sussex County-004
Sussex County- 8 (revised old 1.A.3, 2.A.4)	Conduct annual workshop related to the FEMA HMA grant programs (HMGP, PDM, FMA). This may be done at quarterly OEM coordinator meetings and invite other County departments.	SCDEM and Engineering	In Progress. The County would like to expand offerings and incorporate information on BRIC.	Х	2021-Sussex County-005
Sussex County- 9 (revised old 1.A.4)	Coordinate a yearly program for public information on wildfire with NJ Forest Fire Service (Division A Liaison); and post this information on the County website regarding the wildfire hazard (including current information about fuel loads and conditions that may affect potential for fires).	SCDEM	In Progress	Х	2021-Sussex County-006
Sussex County- 10 (revised old 2.A.5)	Inventory the critical facilities to identify those in geographic areas that may be prone to high ground motion during earthquakes (due to proximity to faults or to soil	Facilities Department and Engineering	No Progress	Х	2021-Sussex County-017

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			Status (In Progress, No	Include in the 2021 HM Update?				
201	6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #			
	characteristics), and those with structures that may be at risk during an earthquake. Study will include determine soil and shake characteristics.							
Sussex County- 11 (revised old 2.A.7)	Work to determine soil and shake characteristics at specific sites that the county has identified as priority critical facilities with potential vulnerabilities to earthquake forces. Based on these results, analyze the critical structures to determine if the structures are sound and next steps to further mitigate.	Facilities Department and Engineering	No Progress	Х	2021-Sussex County-017			
Sussex County- 12 (revised old 2.A.9, 2. A. 10)	Identify wind vulnerabilities at County critical facilities because buildings were designed to 70 mph; new updated code is 90 mph.	County Facilities	No Progress	х	2021-Sussex County-017			
Sussex County- 13 (revised old 2.A.19)	Undertake a survey of critical facilities to identify and prioritize those that may have structural characteristics that make them vulnerable to excessive snow and ice loads such as the Sherriff's Office.	County Facilities	No Progress	Х	2021-Sussex County-017			
Sussex County- 14 (old 2.B.1)	Participate in the Emergency Preparedness Conference and workshops	SCDEM and municipal OEMs, NJOEM, NJFFS	Ongoing capability					
Sussex County- 15 (revised 3.A.1)	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood- proofing) or acquisition/relocation to protect them from future damage; repetitive loss and severe repetitive loss properties should be a priority, when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option Phase 2: Work with the property owners to implement selected action based on available funding from FEMA and local match availability.	SCDEM	In Progress	Х	2021-Sussex County-007			





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

• The County has done extensive work to increase the outreach and emergency response capabilities regarding the coronavirus pandemic.

#### **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Sussex County 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 Sussex County 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 9.1-15 summarizes the comprehensive-range of specific mitigation initiatives the Sussex County 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 9.1-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.1-15. 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- Sussex County- 001	Sheltering	<ul> <li>Problem: Additional sheltering locations are needed to meet the County's sheltering needs.</li> <li>Solution: The County will be working to establish new shelters at the Sussex County Fair Grounds (capacity of 200) and the Fredon Civic Center (capacity of 90). Shelters will be designed to meet FEMA standards and include backup power.</li> </ul>	New	All Hazards	1, 3, 6	SCDEM	HMGP, BRIC, USDA Communit y Facilities Grant Program, County budget	Increas ed shelteri ng capacit y	High	5 ye ars	Hig h	SIP	ES
2021- Sussex County- 002	Warming and Cooling Centers	<ul> <li>Problem: Warming centers need to be established in new locations to expand offerings of warming and cooling centers and maintain access for at risk communities.</li> <li>Solution: The County will expand the number of warming and cooling centers to service the County population.</li> </ul>	New	Severe Weather, Severe Winter Weather	1, 3, 6	SCDEM	HMGP, BRIC, USDA Communit y Facilities Grant Program, County budget	Increas ed emerge ncy capabil ities for extrem e heat and cold events	Medi um	3 ye ars	Hig h	SIP	ES
2021- Sussex County- 003	Increase Vegetation Management Capabilities	<ul> <li>Problem: DPW is responsible for much work in County areas to conduct tree trimming and emergency tree removal. The DPW lacks a 70-foot tree truck and a stump grinder.</li> <li>Solution: The County will purchase a 70-foot tree truck and a stump grinder.</li> </ul>	N/A	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	2, 5	DPW	County budget	Increas ed capabil ities	High	5 ye ars	Hig h	SIP	ES
2021- Sussex County- 004	DPW Snow Load Retrofit	<ul> <li>Problem: The Department of Public</li> <li>Works building does not have a roof that meets current standards for snow load.</li> <li>Failure of the roof could lead to a reduction in critical services by DPW before, during, and after hazard events.</li> <li>Solution: The County Facilities</li> <li>Department will retrofit the roof to meet current standards for snow load on the County Department of Public Works building located on Route 206.</li> </ul>	Existing	Severe Winter Weather, Nor'Easter	1, 2, 6	Facilities	HMGP, BRIC, USDA Communit y Facilities Grant Program, County budget	Reduct ion in risk of failure and protect ion of critical service s	Medi um	5 ye ars	Hig h	SIP	РР





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- Sussex County-	FEMA HMA Informational	<ul> <li>Problem: With the advent of new information on how to apply for hazard mitigation funding support and new programs for funding support, additional education is needed for County staff and municipal staff on FEMA HMA grant programs.</li> <li>Solution: The County will expand</li> </ul>	New and Existing	All Hazards	3, 5	SCDEM, Engineerin	County budget	Increas ed partici pation and success	Low	1 ye	Hig	ЕАР	PI
005	Workshops	offerings and incorporate information on BRIC at an annual workshop related to the FEMA HMA grant programs (HMGP, BRIC, FMA). This may be done at quarterly OEM coordinator meetings and invite other County departments.				g		in FEMA HMA progra ms		ar	n		
2021- Sussex County- 006	Wildfire Outreach	<ul> <li>Problem: Wildfire preparedness by the public is lacking.</li> <li>Solution: Coordinate a yearly program for public information on wildfire with NJ Forest Fire Service (Division A Liaison); and post this information on the County website regarding the wildfire hazard (including current information about fuel loads and conditions that may offset neutratical for final)</li> </ul>	New and Existing	Wildfire	3, 4	SCDEM	County budget, NJ Forest Fire Service	Increas ed wildfir e awaren ess and prepare dness	Low	2 ye ars	Hig h	ЕАР	PI
2021- Sussex	Repetitive Loss	affect potential for fires).Problem: Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The County has 16 repetitive loss properties but other properties may be impacted by flooding as well.Solution: Support the mitigation of		Flood,		SCDEM, local NFIP Floodplain Administrat	FEMA HMGP and FMA. local	Elimin ates flood damag e to homes and residen	\$2	3	Hig		
County- 007	Repetitive Loss Mitigation Support	Solution: Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or acquisition/relocation to protect them from future damage; repetitive loss and severe repetitive loss properties should be a priority, when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option	Existing	Severe Weather	2	or, supported by homeowner s	by residents	ts, creates open space, increas ing flood storage	Milli on	ye ars	h	SIP	РР





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
		Phase 2: Work with the property owners to implement selected action based on available funding from FEMA and local match availability.											
2021- Sussex County-	Update Farmland Preservation	<b>Problem</b> : The Farmland Preservation Plan was last updated in 2008. A new update is needed which would incorporate more information on hazard mitigation.	New and Existing	All Hazards	4, 5	Department of Engineerin	County budget	Increas ed plannin g and	Low	Wi thi n 5	Hig h	LPR	PR
008	008 Plan	<b>Solution:</b> The County will update the Farmland Preservation Plan and include resiliency planning to address long term risk.		11424105		g and Planning		prepare dness		ye ars			
		<b>Problem</b> : The County's Land Development Standards have not been updated since 2008.	-			Department		Reduce d risk to new develo		Wi			
Sussex	Update Land Development Standards	<b>Solution:</b> The County will update the Land Development Standards. The update will include discussion on green technologies and BMP's for stormwater.	New and Existing	All Hazards	2, 4, 5	of Engineerin g and Planning, Planning Board	County budget	pment and increas ing stormw ater effecti veness	Low	thi n 5 ye ars	Hig h	LPR	PR, SP
2021- Sussex County- 010	Master Circulation Plan for Transportation Update	Problem: The Master Circulation Plan for Transportation is due for update.Solution: The County will update the Master Circulation Plan for Transportation, using information from the Hazard Mitigation Plan to identify and reduce risk to the transportation system and maintain emergency access.	New and Existing	All Hazards	1, 2, 4, 5	Department of Engineerin g and Planning	County budget	Increas ed plannin g	Low	Wi thi n 5 ye ars	Hig h	LPR	PP, PR, ES
2021- Sussex County- 011	Adopt the Wastewater Management Plan	Problem: The County Wastewater Management Plan is currently in draft form and requires adoption.Solution: The County's Wastewater Management Plan is currently in draft form. Prior to adoption, the County will use information from the Hazard Mitigation Plan to make updates to reduce risk to the wastewater management system.	New and Existing	Severe Weather, Flood, Hurricane, Nor'Easter	2, 6	Department of Engineerin g and Planning	County budget	Reduct ion in risk of spills, better prepare dness	Low	Wi thi 5 ye ars	Hig h	LPR	PR, 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
2021- Sussex County- 012	Update Stormwater Pollution Prevention Plan	Problem: The County's Stormwater Pollution Prevention Plan requires update. Solution: The County will update the Stormwater Pollution Prevention Plan, using information from the Hazard Mitigation Plan to assist in the update regarding storms and stormwater.	New and Existing	Flood, Severe Weather	2, 4, 5	Department of Engineering and Planning	County budget	Update d plan with integrat ed inform ation	Low	l ye ar	Hig h	LPR	PR
2021- Sussex County- 013	PPE for Disease Outbreak Events	<b>Problem:</b> During the current COVID-19 pandemic, an adequate supply of personal protective equipment (PPE) for County staff was difficult to come by. Without proper PPE, it puts staff and emergency responders at risk to the spread of infectious diseases. <b>Solution:</b> The County will purchase PPE to create a stockpile for municipal staff. This will include gloves, masks, gowns, antibacterial handwash, antiviral cleaning solutions, sanitizers, and misters.	N/A	Disease Outbreak	1, 3, 5	Department of Health and Human Services	BRIC, County budget	Increas e protecti on from disease s; decreas e risk of disease spread	High	1 ye ar	Hig h	LPR	ES
2021- Sussex County- 014	Disinfecting Equipment for County Facilities	Problem: In order to keep County facilities open and functioning during disease outbreak events, the County will require emerging technologies for the disinfecting of County facilities Solution: The County Division of Facilities staff will continue to research emerging technologies for the disinfecting of buildings that would allow for continuing operations during disease outbreak events. The Facilities Department will deploy / install technologies that are determined to be cost-effective	Existing	Disease Outbreak	1, 3, 5	Department of Health and Human Services, Facilities	BRIC, County budget	Mainta in continu ity of operati ons during disease outbrea k events	TBD by availa ble techn ologie s	Wi thi n 5 ye ars	Hig h	SIP	РР
2021- Sussex County- 015	Increased Computer Technology and Software for Health Department	<b>Problem:</b> The Health Department requires increased technological capabilities to track disease outbreak events, notify the public of important updates, share information between departments, and allow for registration for testing, treatment, and vaccination <b>Solution:</b> The County will invest in funds to upgrade the Health Department's computer hardware and software capabilities to better identify,	N/A	Disease Outbreak	1, 3, 5	Department of Health and Human Services	County budget	Increas ed County capabil ities in disease outbrea k events	Medi um	l ye ar	Hig h	LPR, EAP	ES, PI





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
		respond to, and treat disease outbreak events.											
2021- Sussex County- 016	Office of Bridges and Traffic Backup Power	Problem: Backup power sources are necessary to maintain critical services for critical facilities. The Office of Bridges and Traffic lacks a backup power source. Solution: Facilities will research what size generator is needed to power the Office of Bridges and Traffic. The County will then purchase and install the selected generator and necessary electrical components to supply backup power to the Office of Bridges and Traffic.	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	1, 3, 6	Facilities	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, County Budget	Ensure s continu ity of operati ons of Office of Bridge s and Traffic	\$50,0 00	Wi thi n 5 ye ars	Hig h	SIP	ES
2021- Sussex County- 017	County Facilities Hazard Surveying	<ul> <li>Problem: County facilities should be protected from hazards to maintain continuity of operations. Numerous facilities are aging and were built to standards that are lower than modern building requirements.</li> <li>Solution: The County will complete the following surveys of County Facilities: <ul> <li>Soil and shake characteristics with potential vulnerabilities to earthquake forces.</li> <li>Structures that may be at risk during an earthquake</li> <li>Wind vulnerabilities (buildings were designed to 70 mph; new updated code is 90 mph)</li> <li>Structural characteristics that make them vulnerable to excessive snow and ice loads The County will then pursue necessary structural improvements that are identified by these surveys.</li> </ul> </li> </ul>	Existing	Earthquake , Severe Weather, Severe Winter Weather	1, 3, 6	Facilities	County Budget	Protect ion of County facilitie s.	Staff time for surve ys	Wi thi n 5 ye ars	Hig h	SIP	рр
2021-	Frankford	Problem: The Frankford Wastewater	Existing	Hazardous	2	County	BRIC,	Prevent	\$3.5-	Wi	Hig	SIP	PP
Sussex	Wastewater	Treatment facility requires upgrade of the force main to prevent spills of sewage.		Materials		Facilities, Sussex	County budget	ion of spills	4	thi n 5	h		





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
County-	Facility	Solution: County Facilities will work				County			millio	ye			
018	Upgrades	with the Sussex County Utilities				Municipal			n	ars			
		Authority to upgrade the force main at				Utilities							
		the Wastewater Facility.				Authority							

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:

FMAFlood Mitigation Assistance Grant ProgramHMGPHazard Mitigation Grant ProgramBRICBuilding Resilient Infrastructure and Communities

Program

#### Timeline:

The time required for completion of the project upon implementation

<u>Cost:</u> 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 9.1-16. 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- Sussex County-001	Sheltering	1	0	1	1	1	1	0	1	1	1	1	0	1	1	11	High
2021- Sussex County-002	Warming and Cooling Centers	1	0	1	1	1	1	0	1	1	1	1	0	1	1	11	High
2021- Sussex County-003	Increase Vegetation Management Capabilities	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2021- Sussex County-004	DPW Snow Load Retrofit	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Sussex County-005	FEMA HMA Informational Workshops	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Sussex County-006	Wildfire Outreach	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High
2021- Sussex County-007	Repetitive Loss Mitigation Support	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2021- Sussex County-008	Update Farmland Preservation Plan	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2021- Sussex County-009	Update Land Development Standards	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2021- Sussex County-010	Master Circulation Plan for Transportation Update	1	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2021- Sussex County-011	Adopt the Wastewater Management Plan	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2021- Sussex County-012	Update Stormwater Pollution Prevention Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021- Sussex County-013	PPE for Disease Outbreak Events	1	0	1	1	1	1	0	0	1	1	0	1	1	1	10	High





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- Sussex County-014	Disinfecting Equipment for County Facilities	1	0	1	1	1	1	0	1	1	1	0	0	1	1	12	High
2021- Sussex County-015	Increased Computer Technology and Software for Health Department	1	0	1	1	1	1	0	0	1	1	0	1	1	1	10	High
2021- Sussex County-016	Office of Bridges and Traffic Backup Power	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Sussex County-017	County Facilities Hazard Surveying	1	1	1	1	1	1	1	1	1	1	1	0	1	1	13	High
2021- Sussex County-018	Frankford Wastewater Facility Upgrades	0	1	1	1	1	1	0	1	1	1	0	0	1	1	10	High

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

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



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

Table 9.1-17.	<b>Analysis of Mitigation</b>	Actions by Hazard an	d Category
10010 712 271			a caregory

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard





	A	ction W	orkshee	t					
Project Name:	Sheltering								
Project Number:	2021-Sussex County	021-Sussex County-001							
	Ri	sk / Vul	nerabilit	у					
Hazard(s) of Concern:	All hazards								
Description of the Problem:	Additional sheltering	Additional sheltering locations are needed to meet the County's sheltering needs.							
	Action or Proje	ct Intend	ded for Ir	nplementation					
Description of the Solution:									
Is this project related to a C Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌					
Level of Protection:	500-year			ed Benefits avoided):	Increased sheltering capacity				
Useful Life:	25 years		Goals M	let:	1, 3, 6				
Estimated Cost:	High		Mitigat	ion Action Type:	Structure and Infrastructure Project				
	Plan	for Imp	lementa						
Prioritization:	High			l Timeframe for entation:	5 years				
Estimated Time Required for Project Implementation:	Within 2 years		Potenti Sources	al Funding S:	HMGP, BRIC, USDA Community Facilities Grant Program, County budget				
Responsible Organization:	SCDEM			lanning iisms to be Used ementation if any:	Hazard mitigation, Emergency management				
	Three Alternatives	6 Consid							
	Action		Es	timated Cost	Evaluation				
Alternatives:	No Action Purchase multi-use t	railers	\$	\$0 1M per trailer	Current problem continues Require deployment, limited space				
	Purchase tent:	S	\$100	,000 per tent and supplies	Not appropriate for during hazard events or cold weather.				
	Progress Re	port (fo	r plan ma	intenance)					
Date of Status Report:									
Report of Progress:									
Update Evaluation of the Problem and/or Solution:									





	Act	ion Worksheet
Project Name:	Sheltering	
Project Number:	2021-Sussex County-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Provides sheltering for the region
Property Protection	0	
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	1	
Legal	1	The County has the legal authority to complete the project
Fiscal	0	The project requires funding support
Environmental	1	
Social	1	Project would benefit and serve the region
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	0	Within 5 years
Agency Champion	1	SCDEM
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	





	A	ction W	orkshee	t							
Project Name:	DPW Snow Load Ret	rofit									
Project Number:	2021-Sussex County	2021-Sussex County-004									
	Risk / Vulnerability										
Hazard(s) of Concern:	Severe Weather, Sev	evere Weather, Severe Winter Weather									
Description of the Problem:	standards for snow l by DPW before, duri	The Department of Public Works building does not have a roof that meets current standards for snow load. Failure of the roof could lead to a reduction in critical services by DPW before, during, and after hazard events.									
	Action or Proje	ct Inten	ded for Iı	nplementation							
Description of the Solution:					eet current standards for ing located on Route 206.						
Is this project related to a C Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌							
Level of Protection:	500-year			ted Benefits avoided):	Reduction in risk of roof failure and protection of critical services						
Useful Life:	25 years		Goals M	let:	1, 2, 6						
Estimated Cost:	High		Mitigat	ion Action Type:	Structure and Infrastructure Project						
	Plan	for Imp	lementa								
Prioritization:	High			l Timeframe for lentation:	3 years						
Estimated Time Required for Project Implementation:	1 year			al Funding	HMGP, BRIC, USDA Community Facilities Grant Program, County budget						
Responsible Organization:	DPW, Facilities		Mechai in Impl	lanning nisms to be Used ementation if any:	Hazard mitigation, Emergency management						
	Three Alternatives	6 Consid									
	Action		E	stimated Cost	Evaluation						
Alternatives:	No Action			<u>\$0</u>	Current problem continues						
Alternatives:	Build new DPW Ga Build small backup			High	Costly, unnecessary Costly, facility unlikely to						
	in case of failur			High	be used						
	Progress Re		r plan ma	aintenance)							
Date of Status Report:											
Report of Progress:											
Update Evaluation of the Problem and/or Solution:											

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	Acti	on Worksheet
Project Name:	DPW Snow Load Retrofit	
Project Number:	2021-Sussex County-004	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protects critical services of DPW
Property Protection	1	Protects DPW building from Winter Weather and Nor'Easter damages
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	1	
Legal	1	The County has the legal authority to complete the project
Fiscal	0	The project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Winter Weather, Nor'Easter
Timeline	0	5 years
Agency Champion	1	DPW, Facilities
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



	A	ction W	orksheet	:							
Project Name:	Repetitive Loss Mitig										
Project Number:	2021-Sussex County	2021-Sussex County-007									
,	-		nerabilit	v							
Hazard(s) of Concern:	Flood, Severe Storm										
Description of the Problem:	properties have beer County has 16 repeti flooding as well.										
	Action or Project										
Description of the Solution:Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood- proofing) or acquisition/relocation to protect them from future damage; repetitive loss and severe repetitive loss properties should be a priority, when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option Phase 2: Work with the property owners to implement selected action based on available funding from FEMA and local match availability.											
Is this project related to a C Lifeline?		Yes		No 🖂							
Level of Protection:	1% annual chance floo event + freeboard (in accordance with flood ordinance)			ed Benefits avoided):	Eliminates flood damage to homes and residents, creates open space, increasing flood storage.						
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)		2								
Estimated Cost:	\$2 Million		Mitigat	ion Action Type:	Structure and Infrastructure Project						
	Plan	for Imp	lementa	tion	110,000						
Prioritization:	High			Timeframe for entation:	6-12 months						
Estimated Time Required for Project Implementation:	Three years			al Funding	FEMA HMGP and FMA, local cost share by residents						
Responsible Organization:	SCDEM, local NFIP Floodplain Administra supported by homeow			lanning lisms to be Used ementation if any:	Hazard Mitigation						
	Three Alternatives	Consid									
	Action		Es	timated Cost	Evaluation						
Alternatives:	No Action Elevate homes			\$0 \$500,000	Current problem continues           When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads						
	Elevate roads \$500,000 Elevated roadways would not protect the homes from flood damages										
	Progress Rej	port (fo	r plan ma	intenance)							
Date of Status Report:											
Report of Progress:											
Update Evaluation of the Problem and/or Solution:											





	Act	ion Worksheet					
Project Name:	Repetitive Loss Mitigation Support						
Project Number:	2021-Sussex County-007						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Families moved out of high-risk flood areas.					
Property Protection	1	Properties removed from high-risk flood areas.					
Cost-Effectiveness	1	Cost-effective project					
Technical	1	Technically feasible project					
Political	1						
Legal	1	The County has the legal authority to conduct the project.					
Fiscal	0	Project will require grant funding.					
Environmental	1						
Social	0	Project would remove families from the flood prone areas of the County.					
Administrative	0						
Multi-Hazard	1	Flood, Severe Weather					
Timeline	0	3 years					
Agency Champion	1	SCDEM, local NFIP Floodplain Administrator, supported by homeowners					
Other Community Objectives	1						
Total	10						
Priority (High/Med/Low)	High						





	A	ction W	'orkshee	t							
Project Name:	PPE for Disease Outb	reak Eve	nts								
Project Number:	2021-Sussex County-	2021-Sussex County-013									
	Risk / Vulnerability										
Hazard(s) of Concern:	Disease Outbreak	isease Outbreak									
Description of the Problem:	During the current COVID-19 pandemic, an adequate supply of personal protective equipment (PPE) for County staff was difficult to come by. Without proper PPE, it puts staff and emergency responders at risk to the spread of infectious diseases.										
	Action or Project	ct Intene	ded for li	mplementation							
Description of the Solution:	<b>Description of the</b> The County will purchase PPE to create a stockpile for municipal staff. This will include gloves masks gowns antibacterial handwash antiviral cleaning solutions sanifizers and										
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂							
Level of Protection:	PPE			ted Benefits avoided):	Increase protection from diseases; decrease risk of disease spread						
Useful Life:	Supply needs to be rep after use	blaced	Goals M	let:	1, 3, 5						
Estimated Cost:	High		Mitigat	ion Action Type:	Local Plans and Regulations						
	Plan	for Imp	lementa								
Prioritization:	High			d Timeframe for nentation:	Within 2 years						
Estimated Time Required for Project Implementation:	1 year			ial Funding	BRIC, County budget						
Responsible Organization:	Department of Health Human Services	and	Mechai	lanning nisms to be Used ementation if any:	Hazard Mitigation, Emergency Management						
	Three Alternatives	Consid									
	Action		E	stimated Cost	Evaluation						
	No Action Shut down during di	00000		\$0	Current problem continues Loss of continuity of						
Alternatives:	outbreak events			N/A	operations						
	Rely on state/fede			\$0	Supply not guaranteed						
	distribution Progress Rep	nort (fo	r plan m:								
Date of Status Report:											
Report of Progress:											
Update Evaluation of the Problem and/or Solution:											





	Action Worksheet						
Project Name:	PPE for Disease Outbreak	Events					
Project Number:	2021-Sussex County-013						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Protects life from disease outbreak					
Property Protection	0						
Cost-Effectiveness	1	Cost-effective project					
Technical	1	Technically feasible project					
Political	1						
Legal	1	The County has the legal authority to conduct the project.					
Fiscal	0	Project will require funding support.					
Environmental	0						
Social	1	Project would help protect families from disease outbreak events					
Administrative	1						
Multi-Hazard	0	Disease Outbreak					
Timeline	1	1 year					
Agency Champion	1	Department of Health and Human Services					
Other Community Objectives	1						
Total	10						
Priority (High/Med/Low)	High						



			orksheet		
Project Name:	Disinfecting Equipm	ent for C	ounty Fac	cilities	
Project Number:	2021-Sussex County	-014			
	Ri	sk / Vul	nerabilit	у	
Hazard(s) of Concern:	Disease Outbreak				
Description of the Problem:					ng disease outbreak events, fecting of County facilities
Description of the Solution:	emerging technologi	ent of H es for th sease ou	ealth and e disinfec tbreak ev	Human Services staft ting of buildings that ents. The Facilities D	f will continue to research would allow for continuing epartment will install
Is this project related to a ( Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌	
Level of Protection:	TBD by available technologies			ed Benefits avoided):	Maintain continuity of operations during disease outbreak events
Useful Life:	25 years		Goals M	let:	
Estimated Cost:	TBD by available technologies		-	ion Action Type:	Structure and Infrastructure Project
	Plan	for Imp	lementa		
Prioritization:	High			l Timeframe for entation:	Within 5 years
Estimated Time Required for Project Implementation:	Within 2 years		Potenti Sources	al Funding ::	BRIC, County budget
Responsible Organization:	Department of Healt Human Services, Fac			lanning lisms to be Used ementation if any:	Hazard mitigation, emergency management
	Three Alternatives	6 Consid		<u> </u>	
	Action		Es	timated Cost	Evaluation
Alternatives:	No Action Hire outside consult address disease out events			\$0 High	Current problem continues High cost, may not be needed at all times
	Set up plans to w remotely during all o outbreak event	lisease ts		N/A	Full remote setting not possible for critical services
	Progress Re	port (fo	r plan ma	intenance)	
Date of Status Report:					
Report of Progress:					
Update Evaluation of the Problem and/or Solution:					





	Action Worksheet						
Project Name:	Disinfecting Equipment fo	or County Facilities					
Project Number:	2021-Sussex County-014						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Provides protection for critical services for the County					
Property Protection	0						
Cost-Effectiveness	1						
Technical	1	The project is technically feasible					
Political	1						
Legal	1	The County has the legal authority to complete the project					
Fiscal	0	The project requires funding support					
Environmental	1						
Social	1	Project would benefit and serve the region					
Administrative	1						
Multi-Hazard	0	Disease Outbreak					
Timeline	0	Within 5 years					
Agency Champion	1	Department of Health and Human Services, Facilities					
Other Community Objectives	1						
Total	12						
Priority (High/Med/Low)	High						





	Action	Worksheet					
Project Name:	Office of Bridges and Traffic	Backup Power					
Project Number:	2021-Sussex County-016						
Risk / Vulnerability							
Hazard(s) of Concern:	Severe Weather, Severe Win	ter Weather, Hurricane, Nor	'Easter				
Description of the Problem:	Backup power sources are ne Office of Bridges and Traffic			s for critical facilities. The			
Action or Project Intended							
Description of the Solution:	Traffic. The County will then	Facilities will research what size generator is needed to power the Office of Bridges and Traffic. The County will then purchase and install the selected generator and necessary electrical components to supply backup power to the Office of Bridges and Traffic.					
Is this project related to a	Critical Facility? Yes	No 🗌					
Level of Protection:	N/A	Estimated Benefits (losses avoided):		Ensures continuity of operations of Office of Bridges and Traffic			
Useful Life:	20 years	Goals Met:		1,3			
Estimated Cost:	\$50,000	Mitigation Action Type	:	Structure and Infrastructure Projects (SIP)			
Plan for Implementation	1	1					
Prioritization:	High	Desired Timeframe for Implementation:	ſ	Within 5 years			
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sour	rces:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, County Budget			
Responsible Organization:	County Facilities	Local Planning Mechar to be Used in Implementation if any		Hazard Mitigation, Emergency Management			
Three Alternatives Conside	ered (including No Action)	,, , , , , , , , , , , , , , , , ,	-				
	Action	Estimated Cost		Evaluation			
	No Action	\$0		Problem continues.			
Alternatives:	Install solar panels	\$100,000	amo e	eather dependent; need large ount of space for installation; xpensive if repairs needed			
	Install wind turbine	\$100,000		ther dependent; poses a threat 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:							





	Act	ion Worksheet
Project Name:	Office of Bridges and Traf	fic Backup Power
Project Number:	2021-Sussex County-016	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of Office of Bridges and Traffic
Property Protection	1	Project will protect building from power loss.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The County 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	County Facilities
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



		Action	Works	heet		
Project Name:	Frankford Wastewa	ter Facilit	y Upgı	ades		
Project Number:	2021-Sussex Count	y-018				
Risk / Vulnerability						
Hazard(s) of Concern:	Hazardous Material	_				
Description of the Problem:	The Frankford Was spills of sewage.	· · ·				
Action or Project Intended						
Description of the Solution:	County Facilities w main at the Wastew			Sussex County Utilities Au	thority to upgrade the force	
Is this project related to a	Critical Facility?	Yes	$\boxtimes$	No 🗌		
Level of Protection:	TBD by force main	n design		nated Benefits ses avoided):	Prevention of spills	
Useful Life:	20 years			s Met:	2	
Estimated Cost:	\$3.5-4 millio	on	Miti	gation Action Type:	Structure and Infrastructure Project	
Plan for Implementation						
Prioritization:	High			red Timeframe for lementation:	Within 5 years	
Estimated Time Required for Project Implementation:	Within 5 years		Pote	ntial Funding Sources:	BRIC, County budget	
Responsible Organization:	County Facilities, S County Municipal I Authority		to be	l Planning Mechanisms e Used in ementation if any:	Hazard Mitigation	
Three Alternatives Conside	ered (including No	Action)				
	Action			Estimated Cost	Evaluation	
Alternatives:	No Action			\$0	Problem continues.	
Alternatives:	Build secondary f Remove facil			High N/A	Very high cost Removal of facility not a	
	Keniove laen	ity		N/A	possibility	
Progress Report (for plan	maintenance)				· *	
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





	Act	ion Worksheet
Project Name:	Frankford Wastewater Faci	ility Upgrades
Project Number:	2021-Sussex County-018	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Increase capacity of facility to prevent spills
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	Project requires funding support
Environmental	1	Prevent spills
Social	1	
Administrative	1	
Multi-Hazard	0	Hazardous Materials
Timeline	0	Within 5 years
Agency Champion	1	County Facilities, Sussex County Municipal Utilities Authority
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	



# 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 Poi Name / Title: John Hoag, Em Coordinator Address: 137 Main Street, An Phone Number: (862) 268-35 Email: j.hoag@andoverborou	ndover, NJ 07821 508	Alternate Point of Contact 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 Administ Name / Title: Harold Pellow, Address: 137 Main Street, At Phone Number: (973) 948-64	Engineer ndover, NJ 07821			
Name	Title		Method of Participation	
John Hoag	Emergency Management Coo	ordinator	Primary point of contact, attended meetings, provided information and data, contributed to mitigation strategy, reviewed annex draft and provided comments, reviewed final annex*.	
Jessica Casella	Deputy Emergency Managen Coordinator	nent	Alternate point of contact, reviewed annex*	
Harold Pellow	Engineer		NFIP floodplain administrator, reviewed annex*	
Beth Brothman	Borough Clerk		Reviewed draft annex and provided comments.	
John Morgan	Mayor		Reviewed annex*	
Rod Schmidtt	Building Code Official		Reviewed annex*	
Michelle LaStarza	CFO		Reviewed annex*	

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.

# 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.

Type of Development		015 of Building		016 for New C		017 on Issued Si	2018 nce the Previous HN		2019 MP	
	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		ype of lopment		Location # of Units / (address and/or Structures block and lot)		dress and/or Known Hazard		Description / Status of Development		
		Recent Ma	ijor Deve	-		tructure from	m 2015 t	o Present		
				None	identified	1				
Kno	own or A	nticipated	Major D	evelopmen	t and Inf	rastructure	in the Ne	ext Five (5)	Years	
				None a	anticipate	d				

# Table 9.2-2. Recent and Expected Future Development

\* 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-today 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

		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Codes, Ordinances, & Requirements						
Building Code	Yes	State & Local	Yes	Yes	-	
Comment: State mandated on local level under NJA Adopted 9/3/2019 The Construction Official is responsible et seg.).			-			
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
<ul> <li>State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and m</li> <li>The Zoning Department is responsible f</li> <li>The purpose of this chapter i throughout the municipality; structures permitted therein, districts.</li> </ul>	to have current zo aster plan. or this code in com s to encourage and and therefore, to l	ning and other land de pliance with Chapter 1 l promote the most app imit and to restrict and	velopment ordin 34-Zoning. ropriate use and specify distance	ances after the p logical developn s between the bu	lanning board nent of land ildings and	
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance r the filing of such plats with the county r condition for the issuance of a permit fo or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c	equire approval of ecording officer an r any development exempt from such s the planning board of this act . Dictate	subdivision plats by re d approval of site plans , except that subdivision ite plan review and app d whenever the board of ed by the Municipal Lan	solution of the p s by resolution o n or individual lo roval; provided f adjustment has nd Use Law. NJ	lanning board as f the planning bo ot applications fo that the resolutions jurisdiction over Statute 40:27-6.2	a condition for ard as a r detached one on of the board r a subdivision 2 - the board of	



		Authority that		been integra	ts of the HMP ated into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>county by said county planning board a set forth and limited hereinafter in this</li> <li>The Zoning Department is responsible for the purpose of this chapter s</li> <li>Borough of Andover in order shall be administered to ensuland and adequate provision</li> </ul>	section. for this ordinance i hall be to provide to promote the put the orderly gro	n compliance with Chap rules, regulations and s blic health, safety, conv wth and development, t	oter 121- Subdiv standards to guid venience and gen he conservation,	ision of Land. de land subdivisi 1eral welfare of t	on in the he Borough. It
Stormwater Management	Yes	Local	Yes	Yes	-
Comment: • See Title 7 of the NJ Administrative Coal • The Engineering Department is respons • It is the purpose of this chapted development"	ible for this ordina				
Post-Disaster Recovery	No	-	No	-	-
Comment:					
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	No	-
<ul> <li>N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real improvements, fees for services and ame schools, fire and police, as well as any h</li> <li>Growth Management</li> </ul>	Estate Commission Enities, the type of the state of the s	on. The POS provides in title and ownership inte	formation such rest being offere	as estimated com	pletion dates for
Comment: Discussed in Chapter 121: Subdivision of State Mandated on a municipal level. Se Redevelopment Plan provides for the de	e Zoning Ordinand lineation of Growt	h Areas and Environs;	Use of the endor	sed plans in the	
of state environmental regulations make	s the Plan Endorso Yes	ement process a growth Local	management str Yes – if municipality has a Planning Board	rategy. Yes	-
Comment: Dictated by the Municipal Land Use Law review. NJ Statute 40:27-6.2: The board review of all subdivisions of land within affecting county road or drainage facili planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publ given to the county planning board at le a copy of the official notice of the public	l of commissioners the county by said ties as set forth an ile of the planning by planning board a notify the county djoining county ra ic lands shown on ast 10 days prior to hearing together	of any county having a county planning board d limited hereinafter in and zoning ordinances copy of the planning a planning board of the in bads or other county lan the county master plan o the public hearing the with a copy of the propu-	for plans, etc., t county planning d and for the app this section. 40 of all municipau nd zoning ordin. ntroduction of a nds, or lands lyin or official coun ereon by persona osed ordinance.	g board shall pro proval of those su :27-6.10 In order lities in the count ances of the muni ny revision or an ig within 200 fee ty map. Such no il delivery or by o	wide for the ubdivisions r that county y, each icipality in effect nendment of t of a municipal tice shall be certified mail of
The Planning and Zoning Board is response.  Environmental Protection		equirements in complian			Chapter 109.
Environmental Protection Comment: Chapter 9 Environmental Commission e development and use of natural resource			No in order to prov	Yes vide for the protect	- ction,
Flood Damage Prevention	Yes	State & Local	Yes	No	2021-Borough of Andover- 004





		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
<ul> <li>Comment:         <ul> <li>The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016.</li> <li>Chapter 74 Flood Damage Prevention. requires update to include the state man</li> </ul> </li> </ul>	lood losses. They lity must be review ce. Regulations for The Ordinance des	do not require local ad eed for compliance with r the Flood Control Ha signates the Engineer a	option but as enj these regulatior zards Act were a	forced by the NJI as. In addition, p dopted in 2007 a	DEP, the articipation in nd amended	
Wellhead Protection	No	-	No	-	-	
Comment:			•			
Emergency Management	No	-	No	-	-	
Comment:		I				
Climate Change	No	-	No	_	-	
Comment:						
Disaster Recovery Ordinance	No	-	No	-	-	
Comment:						
Disaster Reconstruction Ordinance	No	-	No	-	-	
Comment:						
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	No	-	-	-	-	
Comment:						
Planning Documents						
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-	
<ul> <li>2018 Revised NJ Statute 40:27-2; the control the county. The master plan of a county, show the county planning board's recom among other things, the general location developments, parkways, playgrounds, f the general location and extent of forest</li> </ul>	with the accompa mendations for the n, character, and orests, reservation s, agricultural are	nying maps, plats, char e development of the te extent of streets or road ns, parks, airports, and	ts, and descripti pritory covered ls, viaducts, brid other public wa	ve and explanato by the plan, and 1 ges, waterway at vs, grounds, plac	ry matter, shall nay include, nd waterfront	
water supply, sanitary and drainage fac important to the development of the cou- municipalities within the county in any r advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be o The Planning Board is responsible for t	nty. The county pla natters whatsoever rs with respect to Land Use Law (M and requires that consistent with the	anning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no	ourage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fi	other features as eration of the loc county master pu as and budgets fo 55D-28 provides n and update it e om a presumptio	vation, food and may be al an and to for capital the required very 6 years. n of validity.	
<ul> <li>important to the development of the countribution in the country in any radvise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be of the Planning Board is responsible for the state of the planning board is responsible for the state of the planning board is responsible for the state of the planning board is responsible for the state of th</li></ul>	nty. The county pla natters whatsoever rs with respect to Land Use Law (M and requires that consistent with the	anning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no	ourage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fi	other features as eration of the loc county master pu as and budgets fo 55D-28 provides n and update it e om a presumptio	vation, food and may be al lan and to for capital the required very 6 years. n of validity.	
important to the development of the coun municipalities within the county in any n advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be o The Planning Board is responsible for the Capital Improvement Plan	nty. The county pla natters whatsoever rs with respect to Land Use Law (M and requires that consistent with the his plan in complic	anning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no	ourage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr ough Master Pla	other features as eration of the loc county master pu as and budgets fo 55D-28 provides n and update it e om a presumptio	vation, food and may be al an and to or capital the required very 6 years. n of validity. 5D-89.	
important to the development of the cou municipalities within the county in any r advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be d	nty. The county pla natters whatsoever rs with respect to Land Use Law (M and requires that consistent with the his plan in complic	anning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no	ourage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr ough Master Pla	other features as eration of the loc county master pu as and budgets fo 55D-28 provides n and update it e om a presumptio	vation, food and may be al an and to or capital the required very 6 years. n of validity. 5D-89.	
important to the development of the coun- municipalities within the county in any n advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be o • The Planning Board is responsible for the Capital Improvement Plan Comment: Disaster Debris Management Plan	nty. The county pla natters whatsoeven rs with respect to Land Use Law (M and requires that consistent with the his plan in complia No	anning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no	purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fi pugh Master Pla. No	other features as eration of the loc county master pu as and budgets fo 55D-28 provides n and update it e om a presumptio	vation, food and may be al lan and to for capital the required very 6 years. n of validity. 5D-89. - 2021-Borougi of Andover-	
important to the development of the coun- municipalities within the county in any n advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be of The Planning Board is responsible for the Capital Improvement Plan Comment: Disaster Debris Management Plan Comment:	nty. The county pla natters whatsoeven rs with respect to Land Use Law (M and requires that consistent with the his plan in complia No	anning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no	purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fi pugh Master Pla. No	other features as eration of the loc county master pu as and budgets fo 55D-28 provides n and update it e om a presumptio	vation, food and may be al lan and to for capital the required very 6 years. n of validity. 5D-89. - 2021-Borougi of Andover-	
important to the development of the coun municipalities within the county in any n advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be o • The Planning Board is responsible for th Capital Improvement Plan Comment:	nty. The county pla natters whatsoever rs with respect to Land Use Law (M and requires that consistent with the his plan in complia No	nning board shall enco which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no ince with Andover Borc - -	nurage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fi nugh Master Pla. No	other features as eration of the loc county master particular s and budgets fo 55D-28 provides n and update it e om a presumptio n and NJSA 40:5.	vation, food and may be al lan and to for capital the required very 6 years. n of validity. 5D-89. - 2021-Borougl of Andover-	

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		Authority that		been integra	ts of the HMP ited into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>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 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.</li> <li>The Engineer is responsible for this plan in compliance with Andover Borough Stormwater Management Plan, NJSA 12:5-3, and NJAC 7:8.</li> </ul>					
Stormwater Pollution Prevention Plan	No	-	Yes	-	-
<ul> <li>Comment:</li> <li>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.</li> </ul>					
Urban Water Management Plan	No	-	No	-	-
Comment:		•			
Habitat Conservation Plan	No	-	No	-	-
Comment:		L			
Economic Development Plan	No	-	No	-	-
Comment:		L			
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment: • 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	-	-
Comment:					
Tourism Plan	No	-	No	-	-





		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	<b>Do you have</b> <b>this?</b> (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment:					
Business Development Plan	No	-	No	-	-
Comment:					
Other: Open Space Plan	Yes	Local	No	Yes	-
Comment: • The Open Space department is in complete Response/Recovery Planning	iance with Andove.	r Borough Open Space .	Plan.		
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-
<ul> <li>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.</li> <li>The Emergency Management department is responsible for this plan, which was adopted in 2014.</li> </ul>					e State
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-
Comment:					
Post-Disaster Recovery Plan	Yes	Local	No	Yes	-
Comment: The Emergency Management department is responsible for this plan, which was adopted in 2014.					
<b>Continuity of Operations Plan</b>	Yes	Local	No	Yes	-
Continuity of Operations Plan Comment: The Emergency Management department					-
· ·					-
Comment: The Emergency Management department	t is responsible fo		udopted in 2014.		-
Comment: The Emergency Management department Public Health Plan	t is responsible fo		udopted in 2014.		-

# 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





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



Financial Resource	Accessible or Eligible to Use?
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
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





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

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 <sup>rd</sup> and 24th.	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.

# Table 9.2-11. Hazard Event History

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

		Expo	sure
Name	Туре	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.

Dam Failure	Disease Outbreak	Drought	Drought Earthquake		Flood	Geologic
Low	Medium	Medium	Low		Low	Low
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter	Sev Wea		Wildfire
Medium	High	Medium	High	Hi	gh High	Low

# Table 9.2-13. Borough of Andover Hazard Ranking

# 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)	the 2021 HMP date? Enter 2021 HMP Action #		
Andover Boro-1 (revised old #6)	To ensure continuity of operations, purchase and install generators within the Borough: • Municipal water system • Municipal building Shelter	Mayor, Water Department, OEM	Complete			





			Status (In Progress, No	Include in the 2021 HMP Update?				
2016 Action Number Action Description		Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #			
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 Department located on Route 206.	DPW Supervisor	No Progress, no longer considered necessary.					
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	Х	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
		<b>Problem</b> : Backup power sources are necessary to maintain critical services for critical facilities. The Fire House located on Route 206 lacks a backup power source. This prevents the building from being used as a backup sheltering location.		Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	1		FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program,	Ensures continuit y of operatio ns of Fire Departm ent and allows for shelterin g	\$75,000	Within 5 years	High		
2021- Borough of Andover- 001	Fire House Backup Power	<b>Solution:</b> The Borough and the Fire House will partner to apply for grant funding to purchase and install a 100kW generator and necessary electrical components to supply backup power to the Fire House. Once installed, the Fire Department will be responsible for maintenance.	Existing			Fire Department , OEM	Emergency Manageme nt Performanc e Grants (EMPG) Program, Assistance to Firefighters Grant Program, Fire Departmen t Budget					SIP	ES
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. Solution: The Borough will complete retrofits and upgrades to the Water Tower. The Borough will clear vegetation around the Tower to prevent	Existing	Drought, Wildfire	1, 2	OEM, Engineer	HMGP, BRIC, USDA Communit y Facilities Grant Program, Borough budget	Ensures continuit y of operatio ns of water tower, protects from wildfire	High	Within 3 years	High	SIP, NSP	PP, NR
2021- Borough of Andover- 003	Borough Municipal Building Retrofit	overgrowth and lower wildfire risk. <b>Problem</b> : The Borough municipal building roof is not designed to withstand current snow load standards.         Failure of the roof would result in loss of the primary Borough building and disrupt critical services.	Existing	Severe Winter Weather	2,6	Administrat ion, Engineer	HMGP, BRIC, USDA Communit y Facilities Grant	Protecti on of building from damage, maintain	Medium	Within 5 years	High	SIP	РР





### Section 9.2 - Borough of Andover

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
		<b>Solution:</b> When the roof is ready to be replaced on the municipal building, the Borough will incorporate the current snow load standards during the design and installation of the replacement roof.					Program, Borough budget	continuit y of operatio ns.					
2021- Borough of	Flood Damage Prevention	<b>Problem</b> : The Borough's Flood Damage Prevention Ordinance lacks language to include the state mandated freeboard requirement.	New	Flood	2	Administrat	Borough	Meet state standard s	Staff time	Within 6 months	High	LPR	PR
Andover- 004	Ordinance Update	<b>Solution:</b> The Borough will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement.	New		2	ion	budget						
2021-	Disaster	<b>Problem</b> : The Borough lacks a Disaster Debris Management Plan.						Increase					
Borough of Andover- 005	Disaster Debris Manageme nt Plan	<b>Solution:</b> The Borough will develop and adopt a Disaster Debris Management Plan. The Plan will include any necessary mutual aid discussions to supplement the Borough's capabilities.	N/A	All Hazards	5	OEM, Administrat ion	Borough budget	d disaster capabilit ies	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

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.

Potential FEMA HMA Funding Sources:

FMA

HMGP

Program

BRIC

• 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.

Flood Mitigation Assistance Grant Program

Building Resilient Infrastructure and Communities

Hazard Mitigation Grant Program

- 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:



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.



- 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.

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

# Table 9.2-16. Summary of Evaluation and Action Priorities

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 Categ	ory

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

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

high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard





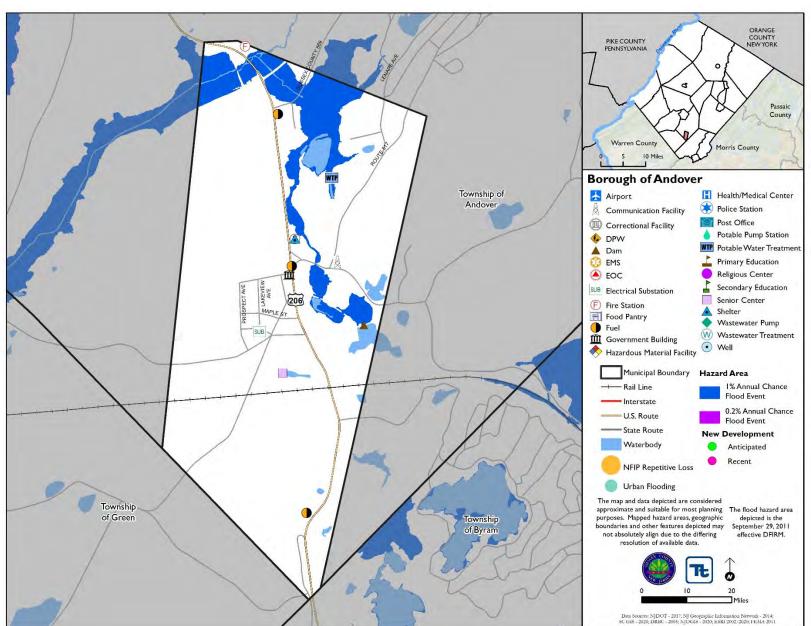


Figure 9.2-1. Borough of Andover Hazard Area Extent and Location Map 1





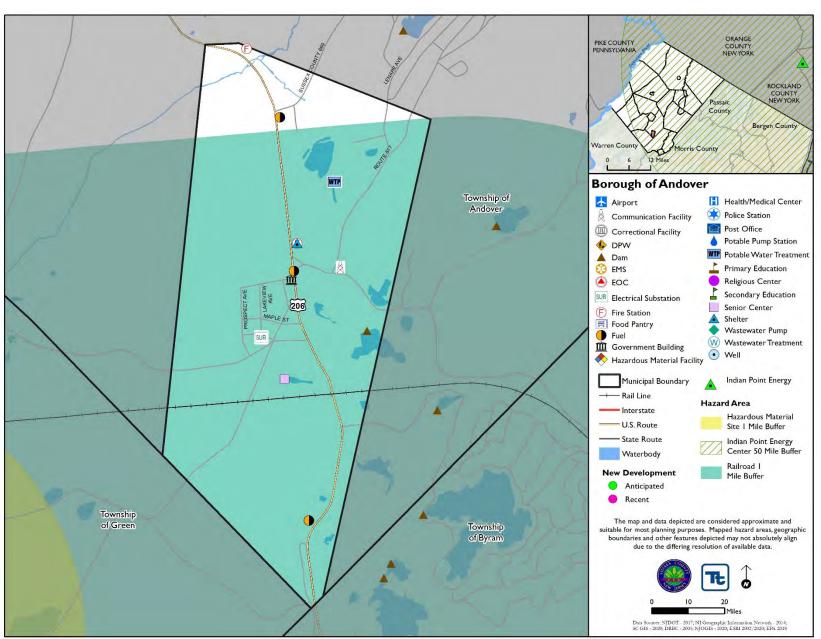


Figure 9.2-2. Borough of Andover Hazard Area Extent and Location Map 2



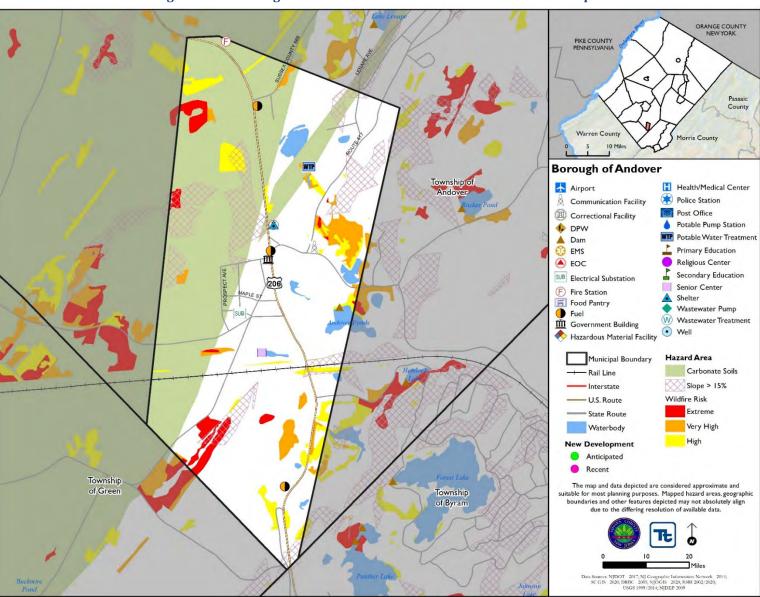


Figure 9.2-3. Borough of Andover Hazard Area Extent and Location Map 3



		A -+ X	(A7]	-1+				
	Fire House Backup	Action Power	works	sheet				
Project Name:			1					
Project Number:	2021-Borough of A	ndover-00	)]					
Risk / Vulnerability	G W 4 G		117	d 11 ' ) 1	1E -			
Hazard(s) of Concern:	Severe Weather, Se	vere Wint	er We	ather, Hurricane, Nor	r'Easter			
Description of the Problem:	Fire House located	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								
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	$\boxtimes$	No 🗌				
Level of Protection:	N/A			mated Benefits ses avoided):		Ensures continuity of operations of Fire Department and allows for sheltering		
Useful Life:	20 years		Goal	ls Met:		1, 3		
Estimated Cost:	\$75,000		Mitigation Action Type:			Structure and Infrastructure Projects (SIP)		
Plan for Implementation	TT' 1							
Prioritization:	High		Desired Timeframe for Implementation:		Within 5 years			
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		rces:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Assistance to Firefighters Grant Program, Fire Department Budget		
Responsible	Fire Department, B	orough	Loca	al Planning Mechai	nisms	Hazard Mitigation,		
Organization:	Administration		to be Used in			Emergency Management		
Three Alternatives Conside	ared (including No	Action)	Imp	lementation if any	' <b>:</b>			
Three Alternatives Conside	Action	Action	E	Estimated Cost		Evaluation		
	No Action			\$0		Problem continues.		
Alternatives:	Install solar pa	nels	\$100,000 am		amo e	eather dependent; need large ount of space for installation; xpensive if repairs needed		
	Install wind tur	bine	\$100,000 Weather dependent; poses a to wildlife; expensive repaneed			ther dependent; poses a threat wildlife; expensive repairs if needed		
Progress Report (for plan	naintenance)							
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								

\_\_\_\_\_





Action Worksheet								
Project Name:	Fire House Backup Powe	Fire House Backup Power						
Project Number:	2021-Borough of Andove	er-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 V	Vorksheet						
Project Name:	Water Tower Retrofit	N OT ROHOOC						
	2021-Borough of Andover-00	2021-Borough of Andover-002						
Project Number:								
Risk / Vulnerability	Drought, Wildfire							
Hazard(s) of Concern:	Diought, whathe							
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								
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	No 🗌						
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 Conside								
	Action	Estimated Cost	Evaluation					
Alternatives:	No Action	\$0 High	Problem continues. Costly and not necessary					
Alternatives:	Rebuild water tower Build secondary water tower	6	Costly and not necessary					
	to new standards High Costly and not necessa							
Progress Report (for plan	naintenance)							
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								

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Action Worksheet							
Project Name:	Water Tower Retrofit						
Project Number:	2021-Borough of Andove	pr-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						

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	Action	Worksheet						
Project Name:	Borough Municipal Building							
	2021-Borough of Andover-00	2021-Borough of Andover-003						
Project Number:								
Risk / Vulnerability								
Hazard(s) of Concern:	Severe Winter Weather							
Description of the Problem:	standards. Failure of the roof critical services.	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	No 🗌						
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 Conside	ered (including No Action)							
	Action	Estimated Cost	Evaluation					
	No Action	\$0	Problem continues.					
Alternatives:	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 i								
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								

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Action Worksheet							
Project Name:	Borough Municipal Build	ling Retrofit					
Project Number:	2021-Borough of Andove	er-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						





# 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).

Primary Poi	nt of Contact	Alternate Point of Contact			
Name / Title: Chief Eric Dan Management Coordinator Address: 134 Newton-Sparta Phone Number: (862) 266-13 Email: edanielson@atpd.org	Road, Newton, NJ 07860	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 Stoney, 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 Stoney	Township Engineer	NFIP Floodplain Administrator, reviewed annex*			
Patricia L. Bussow	Mayor	Reviewed annex*			
Tony Grisaffi	CFO	Reviewed annex*			
Jim Miller	Building Code Official	Reviewed annex*			
Jessica Caldwell	Land Use Planner	Reviewed annex*			
Darren Dickerson	Public Works Director	Reviewed annex*			
Kyle T. Wilson	Fire Department	Reviewed annex*			

#### Table 9.3-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





# 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.

Type of Development	2015		2016		2017		2018		2019	
Number	of Build	ing Permi	ts for Nev	v Constru	ction Issu	ed Since t	he Previo	us 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 Re	Type (add ent of # of Units / and/c			ation dress or block l lot) om 2015 to	Zon	Hazard e(s)*	Stat	ption / us of opment		
Pace Glass			1		1045 Limecrest Road		Nuclear Hazar	Incident d Area, ate Soil		action in gress
Perona Farms Addition	Comr	nercial	1		350 Andover Sparta Road		Nuclear Incident Hazard Area		Construction in progress	
Darla Enterprises	Comr	ommercial 1		40 Newton- Sparta Road		Nuclear Incident Hazard Area, Hazardous Material Hazard Area		Approved by Board		
LAC Realty Corp (AG Pizza)	Comr	nercial		1		lewton- a Road		Incident d Area	Comj	pleted

# Table 9.3-2. Recent and Expected Future Development





Rupa Management LLC	anagement LLC Commercial		1 241 Newton- Sparta Road		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-today 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.

		Authority that		Have aspects of the HMF been integrated into you codes/ordinances/plans						
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.					
Codes, Ordinances, & Requirements	Codes, Ordinances, & Requirements									
Building Code	Yes	State & Local	Yes	Yes	-					
Comment: • 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	-					

# Table 9.3-3. Planning, Legal and Regulatory Capability



	Do you have this? (Yes/No)	this? Regional, County,		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
			Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment: • State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and m	to have current zo aster plan.	oning and other land de	velopment ordin		
The Land Use Board is responsible for t Subdivisions	his code in compli Yes	Local	Yes – if municipality has a Planning Board	Yes	-
The governing body may by ordinance r the filing of such plats with the county r condition for the issuance of a permit fo or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this The Land Use Board is responsible for t	ecording officer an r any development exempt from such s the planning boar of this act . Dictat ounty planning boar nd for the approva- section.	ad approval of site plan. c, except that subdivision ite plan review and app d whenever the board of ed by the Municipal La ard shall provide for th al of those subdivisions	s by resolution of n or individual lo proval; provided of adjustment has nd Use Law. NJ ne review of all s affecting county	f the planning bo ot applications fo that the resolutio ; jurisdiction over Statute 40:27-6.2 ubdivisions of lan	ard as a r detached one on of the board r a subdivision ? - the board of nd within the
Stormwater Management	Yes	Local	Yes	Yes	-
<ul> <li>See Title 7 of the NJ Administrative Cod</li> <li>The DPW is responsible for this ordinar</li> </ul> Post-Disaster Recovery		with Chapter 150. -	No	-	-
Comment:	r	1	1		
Real Estate Disclosure	No	State, Division of Consumer Affairs	Yes	No	-
<b>Comment:</b> N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Cor improvements, fees for services and amenities, the t and police, as well as any hazards, risks or nuisanc	nmission. The POS ype of title and ow	S provides information son some states of the second second second second second second second second second se	such as estimated	d completion date	es for
Growth Management	Yes	Local	has a Planning Board	No	-
Comment: State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make The Andover Township Planning Board	lineation of Growt is the Plan Endors	h Areas and Environs; ement process a growth	Use of the endor management st	sed plans in the i rategy.	mplementation
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	No	-
Comment: Dictated by the Municipal Land Use Law review. NJ Statute 40:27-6.2: The board review of all subdivisions of land within affecting county road or drainage facili planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publ	l of commissioners the county by saia ties as set forth an île of the planning y planning board a notify the county djoining county re	of any county having a l county planning board d limited hereinafter in and zoning ordinances t copy of the planning a planning board of the it boads or other county lat	county planning d and for the app this section. 40 of all municipal and zoning ordina ntroduction of a nds, or lands lyin	g board shall pro proval of those su :27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 feet	wide for the bdivisions that county y, each cipality in effect tendment of t of a municipa



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
			Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
given to the county planning board at lea a copy of the official notice of the public	hearing together	with a copy of the prop	osed ordinance.	ıl delivery or by c	certified mail of
The Land Use Board is responsible for t Environmental Protection	<i>hese requirements</i> No	in compliance with Ch	<i>apter 131.</i> No	_	_
Comment:	110		110		
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	2021-Andove Township-00
<ul> <li>It is the purpose of this chapter to promodule to flood conditions in specific areas         <ul> <li>A. To protect human life and</li> <li>B. To minimize expenditure of</li> <li>C. To minimize the need for to of the general public;</li> <li>D. To minimize prolonged builties, streets and bridges loot of the function of the function of the general public;</li> <li>F. To help maintain a stable hazard so as to minimize futto</li> <li>G. To ensure that potential boost to the function of the general public;</li> </ul> </li> </ul>	by provisions dest health; if public money for rescue and relief e, usiness interruption iblic facilities and ated in areas of sp tax base by provid tre flood blight are uvers are notified	igned: costly flood control pr fforts associated with fluns; utilities such as water a ecial flood hazard; ling for the alternate use as; that property is in an ai	ojects; ooding and gene and gas mains, e e and developme rea of special flo	rally undertaken lectric, telephone ent of areas of spe od hazard; and	at the expense and sewer ecial flood
The ordinance lacks the state mandated Wellhead Protection	<i>freeboard require</i> No	ment.	No	_	_
Comment:	110		110		
Emergency Management	No	-	No	-	-
Comment:					
Climate Change	No	-	No	-	-
Comment:			•		
Disaster Recovery Ordinance	No	-	No	-	-
Comment:					
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:					
Other [Special Purpose Ordinances (i.e.,	Yes	Local	No	No	-
sensitive areas, steep slope)]					
	these ordinances in	n compliance with Chap	oter 150-11.		
sensitive areas, steep slope)]	these ordinances in	n compliance with Chap	oter 150-11.		
sensitive areas, steep slope)] Comment: The Land Use Board is responsible for t	these ordinances in Yes	n compliance with Chap Local	oter 150-11. Yes	No	-

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



		Authority that	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)		If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>municipalities within the county in any n advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be c</li> <li>The Plan was last reexamined in 2010.</li> <li>The Andover Township Land Use Board</li> </ul>	rs with respect to Land Use Law (M and requires that consistent with the	the formulation of devel (LUL) L. 1975, s. 2, eff. each municipality prepa Master Plan or will not	lopment program Aug 1, 1976 40:. are a master pla	ns and budgets f 55D-28 provides n and update it e	or capital the required very 6 years.
Capital Improvement Plan	Yes	Local	No	No	-
<b>Comment:</b> The Andover Township is responsible for	r this plan in com	oliance with Resolution.			
Disaster Debris Management Plan	No	-	No	-	2021-Andover Township-008
Comment:					*
Floodplain or Watershed Plan	No	-	No	-	-
Stormwater Management Plan	Yes	Local	Yes	Yes	-
requirements for groundwater recharge, of major development to be located with without prior authorization from the Dep • The Andover Township and DPW is resp	in or to discharge partment under the	runoff from the major a Flood Hazard Area Co	levelopment into ontrol Act Rules,	a 300-foot ripar N.J.A.C. 7:13.	ian zone
Stormwater Pollution Prevention Plan	No	-	Yes	-	-
Comment: • The Phase II New Jersey Pollutant Disc. 7:14A) were published in the February 2 associated with existing stormwater rum as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will management plan and implementing or basin cleaning); implementing solids am education component. The latest rule an	2, 2004, NJ Registo off. The NJPDES I tter Act. These NJJ sewer systems, kn such as universiti am establishes the ese sources. The S dlife feeding, prop linance(s); requiri d floatables contro	er. These NJPDES rules rules establish a regulat PDES rules govern the v pwn as MS4s. Under the es and hospitals, and St Statewide Basic Requirer atewide Basic Requirer er waste disposal, etc.), ng certain maintenance al; locating discharge p	are intended to ory program for issuance of perm is program, perm tate, interstate an rements that mus nents include me the developmen activities (such	address and red existing stormwa its to entities that nits must be secu- nd federal agences to be implemented easures such as: nt of a municipal as street sweepin	uce pollutants ater discharges t own or red by ies that operate d to reduce the adoption of stormwater og and catch
Urban Water Management Plan	No	-	No	-	-
Comment:		L			
Habitat Conservation Plan	No	-	No	-	-
Comment:					
Economic Development Plan	Yes	Local	No	Yes	-
Comment: The Andover Township is responsible fo	r this plan in com	oliance with Chapter 3-	70 of the Munici	pal Code.	
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment: • NJ Coastal Area Facility Review Act (N. including construction, relocation, and e structures, and site preparation. This la Community Wildfire Protection Plan	enlargement of bui	ldings or structures, an	d excavation, gr	ading, shore pro	tection





		Authority that		Have aspects of the HM been integrated into you codes/ordinances/plana	
	<b>Do you have</b> <b>this?</b> (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
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	No	-
Comment:					
The Andover Township is responsible for Response/Recovery Planning	r this plan in comp	pliance with Resolution.			
Comprehensive Emergency Management Plan					
(CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	No	-
Comment: • Each county and municipality in the Stat. necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State • The Office of Emergency Management is Threat & Hazard Identification & Risk Assessment (THIRA)	Emergency Operat een adopted by the e Emergency Oper	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2	ted no later than ncy Managemen	one year after th	ne State
Comment:					
Post-Disaster Recovery Plan	No	-	No	-	-
Comment:					
Continuity of Operations Plan	No	-	No	-	-
Comment:				-	
Public Health Plan	No	-	No	-	-
Comment:		•			
Other	No	-	No	-	-
Comment:					

# 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





Criterion	Response	
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.

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)

### Table 9.3-5. Administrative and Technical Capabilities

# FISCAL CAPABILITY





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

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
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

# Table 9.3-6. Fiscal Capabilities

### 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	-	-



		5000001715	
Program	Participating?	Classification	Date Classified
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.

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

#### Table 9.3-9. Adaptive Capacity

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.





Criterion	Response
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
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?* -What is the insurance in force? -What is the premium in force?	4 policies \$1,260,000 insurance in force \$1,924 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	2 claims \$304 in payments
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.

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 <sup>rd</sup> and 24th.	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.

Table 9.3-11. Hazard Event History	Table 9.3-11.	. Hazard Event History	orv
------------------------------------	---------------	------------------------	-----

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 AND LIFELINES**

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

### Table 9.3-12. Critical Facilities and Lifelines Flood Exposure

		Expo	osure
Name	Туре	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:

- 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 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	Wildfire
Medium	High	Medium	High	High	High	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

			Status (In Progress, No		the 2021 HMP odate?
201	6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	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; Town hall, firehouse and the DPW all had backup natural gas generators installed. This was funded via grant.		
Andover Twp-2 (new)	Pierce Road – stormwater retention basin	Township and Engineer	No Progress	Х	2021-Andover Township-001
Andover Twp-3 (new)	Pinkeyville Road – stormwater retention basin	Township and Engineer	Complete; Pinkneyville Road had road improvements completed including drainagecompleted via partial funding from grant.		
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	х	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	Х	2021-Andover Township-004





			Status (In Progress, No		the 2021 HMP odate?
201	6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
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; the Township has constant communication and contact with local schools. Increased security has been established at both locations with a lockdown alert system and assisted them with the implementation process. Conducted active shooter training on school grounds to include them as stakeholders. Completed via school funding.		
Andover Twp-8 (new)	The Township will develop a COOP and it will integrate mitigation.	OEM Director and Township Administrator	No Progress	Х	2021-Andover Township-005
Andover Twp-9 (old #3)	Implementation of Fire Wise community program	Township Fire and OEM	In Progress	х	2021-Andover Township-006
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; Long Pond School roof was upgraded by school board - completed via school funding.		
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; FMB School roof was upgraded by school board - completed via school funding.		
Andover Twp-12 (old #6)	Inundation study for Hidden Valley Lake Dam / Bonnie Glen Court	Hidden Valley Lake Association	Complete; Hidden Valley Lake Association did study and implemented a Emergency Plan for the lake - completed on their own funding. Local OEM assisted with emergency planning.		
Andover Twp-13 (old #7)	Inundation study for Lake Lenape Dam / Old Creamery Road	Hidden Valley Lake Association	Complete; Lake Lenape did emergency plan and also recently replaced dam infrastructure - completed on their own funding. Local OEM assisted with emergency plan.		
Andover Twp-14 (old #8)	Stormwater retention basin – Old Creamery Rd & Hemlock Ave	Township and Engineer	No Progress	х	2021-Andover Township-002
Andover Twp-15	Expand mitigation education and outreach efforts through	OEM	In Progress	Х	2021-Andover Township-007





			Status (In Progress, No		the 2021 HMP odate?
			Progress, Ongoing		Enter 2021
2016 Action Number Action		Responsible	Capability, or	Check if	HMP Action
	Description	Party	Completed)	Yes	#
(revised handouts, newsletters, social old #9) media, and Township website.					

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.





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.Solution: The Township will design and install a stormwater retention basin on Pierce Road.	New	Flood, Severe Weather	2	Engineer, Public Works	HMGP, BRIC, Township budget	Reduct ion in flood risk	High	Wi thi 5 ye ars	Hig h	SIP	SP
2021- Andover Township -002	Old Creamery Rd & Hemlock Ave Stormwater Retention Basin	Problem: Stormwater flooding is a problem at Old Creamery Road & Hemlock Avenue.         Solution: The Township will design and install a stormwater retention basin on Old Creamery Road & Hemlock Avenue.	New	Flood, Severe Weather	2	Engineer, Public Works	HMGP, BRIC, Township budget	Reduct ion in flood risk	High	Wi thi 5 ye ars	Hig h	SIP	SP
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.         Solution: The Township will budget for         future mitigation projects in both the         Township budget and Capital         Improvement Budget.	Both	All Hazards	5	OEM Director and Township Administrat or	Township budget, Finance Departmen t	Increas ed financi al capabil ity	Medi um	1 ye ar	Me diu m	LPR	PP, SP, PI, NR
2021- Andover Township -004	Resilience Committee and Advisor	<ul> <li>Problem: The Township requires better coordination and staff knowledge on community resilience to inform hazard mitigation planning and project implementation.</li> <li>Solution: The Township will establish a community resilience committee and advisor.</li> </ul>	Both	All Hazards	1, 2, 3, 4, 5, 6, 7	OEM Director, Township Administrat or	Township budget	Increas ed resilien ce knowle dge and capabil	High	Wi thi n 5 ye ars	Me diu m	LPR	PR
2021- Andover Township -005	Continuity of Operations Plan	Problem: The Township lacks a Continuity of Operations Plan.         Solution: The Township will develop and adopt a Continuity of Operations Plan.	Existing	All Hazards	3, 5, 6	OEM, Administrat ion	Township budget	ities Increas ed emerge ncy capabil ity	Low	1 ye ar	Me diu m	LPR	ES
2021- Andover Township -006	FireWise Program	<b>Problem</b> : The Township has wildfire risk but is not enrolled in the FireWise program. <b>Solution:</b> The Township will enroll and maintain status within the FireWise program.	Both	Wildfire	1, 2, 3	Township Fire and OEM	Township budget	Increas e wildfir e protect ion	Staff time	Wi thi 5 ye ars	Me diu m	LPR	PP, PR





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s ) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cos	Timeline	Priority	Mitigation Category	CRS Category							
2021- Andover Hazard Outreach Township Improvements -007	Hazard Outreach	<b>Problem</b> : The Township's outreach on hazard mitigation topics requires expansion.									All			Township	Educat	\$1,00	Wi thi n	Hig		
	<b>Solution:</b> The Township will expand mitigation education and outreach efforts through handouts, newsletters, social media, and the Township website.	N/A	hazards	/	4	4 OEM	budget	ed public	0	l ye ar	h	EAP	PI							
2021- Disaster Debris	<b>Problem</b> : The Township lacks a Disaster Debris Management Plan.		_			OEM.		Increas ed	a. 00	1										
Andover Township -008	Andover Township Disaster Debris Management Plan	<b>Solution:</b> The Township will develop and adopt a Disaster Debris Management Plan.	Existing	All hazards	356	3, 5, 6 Public Works	Township budget	disaste r capabil ity	Staff time	ye ar	Hig h	LPR	ES							
2021-	Flood Damage	<b>Problem:</b> The Township's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.				FPA,	T 1	Meet state standar		6										
Andover F Township C	Prevention Ordinance Update	<b>Solution:</b> The Township will update the Flood Damage Prevention Ordinance to include the freeboard requirement.	New	few Flood		,	Township budget	ds, reduce future flood risk	Staff time	m on ths	Hig h	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:

FMAFlood Mitigation Assistance Grant ProgramHMGPHazard Mitigation Grant ProgramBRICBuilding Resilient Infrastructure and Communitiesprogram

#### Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

#### <u>Benefits:</u>

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 9.3-16. Summary of Evaluation and Action Priorities

Initiative Number	Mitigation Initiative Name	Life Safety	Property Protection	Cost Effectiveness	<b>Fechnical</b>	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.



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

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

high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



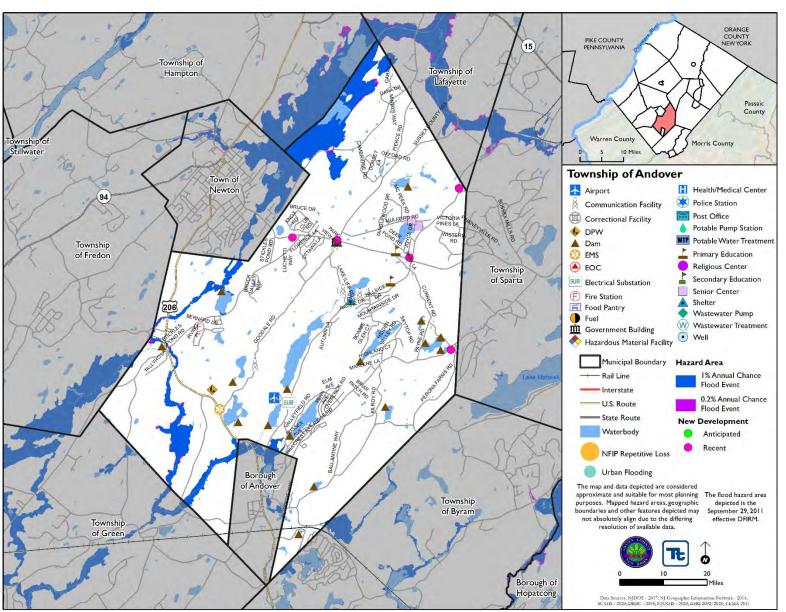


Figure 9.3-1. Township of Andover Hazard Area Extent and Location Map 1



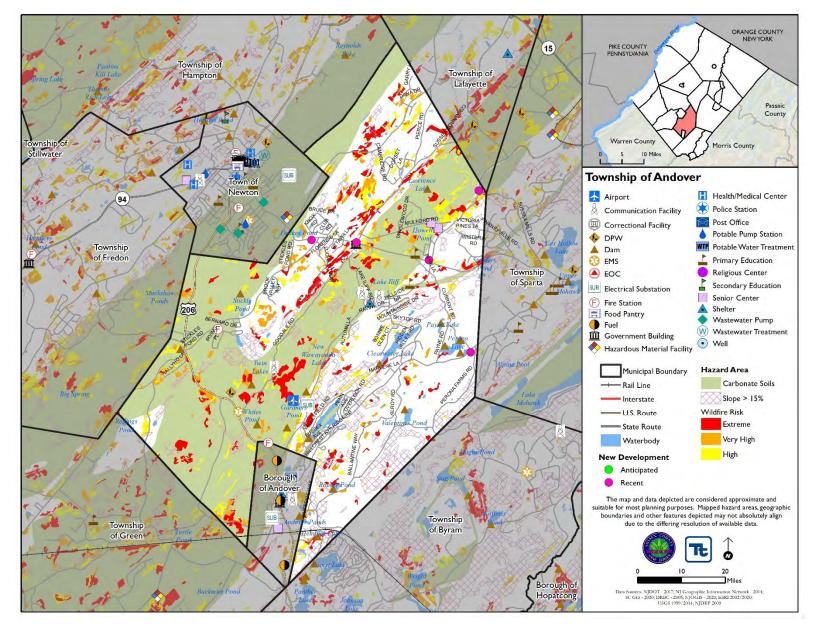
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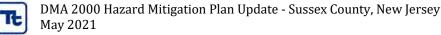
ORANGE COUNTY NEW YORK PIKE COUNTY PENNSYLVANIA (15) Township of Hampton Township of Lafayette ROCKLAND COUNTY NEW YORK Passai County Bergen County Township of Stillwater Morris Count 12 XX SUB **Township of Andover** Health/Medical Center Airport (94) Police Station **Communication Facility** X UCE DR PINES LA Post Office Correctional Facility Potable Pump Station DPW RD WTP Potable Water Treatment Township 🔺 Dam Primary Education of Fredon 🕄 EMS m EOC **Religious** Center Township of Sparta Secondary Education SUB Electrical Substation Senior Center F) Fire Station A Shelter 20 Food Pantry Wastewater Pump Fuel (W) Wastewater Treatment **M** Government Building  $\odot$ Well Azardous Material Facility Indian Point Energy Municipal Boundary ----- Rail Line Hazard Area - Interstate Hazardous Material U.S. Route Site I Mile Buffer State Route Indian Point Energy Center 50 Mile Buffer Waterbody Railroad I **New Development** Mile Buffer Anticipated Borough e Recent of Andover The map and data depicted are considered approximate and Conship suitable for most planning purposes. Mapped hazard areas, geographic boundaries and other features depicted may not absolutely align of Byram SUB Township due to the differing resolution of available data. of Green 20 10 Borough of Miles Hopatcong Data Sousces: NJDOT - 2017; NJ Geographic Information Network - 2014 SC GIS - 2020; DRBC - 2005; NJOGIS - 2020; ESRI 2002/2020; EPA 2018

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







	A	ction W	orkshee	t						
Project Name:         Pierce Road Stormwater Retention Basin										
Project Number:	2021-Andover Township-001									
Risk / Vulnerability										
Hazard(s) of Concern:										
Description of the Problem:       Stormwater flooding is a problem at Pierce Road.										
Action or Project Intended for Implementation										
Description of the Solution:	tention basin on Pierce Road. of the basin.									
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂						
Level of Protection:	TBD by design specifications	1		ted Benefits avoided):	Reduction in flood risk					
Useful Life:	fe: 30 years			let:	2					
Estimated Cost:	High		Mitigat	ion Action Type:	Structure and Infrastructure Projects					
	Plan	for Imp	lementa							
Prioritization:	High			d Timeframe for nentation:	Within 5 years					
Estimated Time Required for Project Implementation:	6 months		Potenti Source	ial Funding s:	HMGP, BRIC, Township budget					
Responsible Organization:	Engineer, Public Wor	ks	Mechai	lanning nisms to be Used ementation if any:	Hazard mitigation, Stormwater management					
	Three Alternatives	consid		red (including No Action)						
	Action			stimated Cost	Evaluation					
	No Action			\$0	Current problem continues					
Alternatives:	Elevate roadwa	У		\$500,000	Costly and may not solve problem					
	Relocate roadwa			N/A	Not possible					
	Progress Re	port (fo	r plan m	aintenance)						
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-0	01						
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							





	Δ	ction W	orkshee	÷		
Project Name: Old Creamery Rd & Hemlock Ave Stormwater Retention Basin						
•		2021-Andover Township-002				
Project Number: 2021-Andover Township-002 Risk / Vulnerability						
			nerabilit	y.		
Hazard(s) of Concern:	Flood, Severe Weathe	r				
Description of the Problem:	Stormwater flooding i	is a probl	em at Old	Creamery Road & He	mlock Avenue.	
	Action or Project	ct Intend	ded for Iı	nplementation		
Description of the Solution:	The Township Engine Road & Hemlock Ave the basin.	eer will d enue. Pub	esign and blic Works	install a stormwater re s will be responsible fo	tention basin at Old Creamery or upkeep and maintenance of	
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🛛		
Level of Protection:	TBD by design specifications			ted Benefits avoided):	Reduction in flood risk	
Useful Life:	30 years		Goals M	let:	2	
Estimated Cost:	High		Mitigat	ion Action Type:	Structure and Infrastructure Projects	
	Plan	for Imp	lementa			
Prioritization:	High			l Timeframe for ientation:	Within 5 years	
Estimated Time Required for Project Implementation:	6 months		Potenti Source	al Funding s:	HMGP, BRIC, Township budget	
Responsible Organization:	Engineer, Public Wor	ks	Mechar	lanning nisms to be Used ementation if any:	Hazard mitigation, Stormwater management	
	Three Alternatives	Consid			<u> </u>	
	Action			stimated Cost	Evaluation	
	No Action			\$0	Current problem continues	
Alternatives:	Elevate roadwa		\$500,000		Costly and may not solve problem	
		Relocate roadway N/A Not possible				
	Progress Re	port (fo	r plan ma	aintenance)		
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					





# 9.4 BOROUGH OF BRANCHVILLE

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

# 9.4.1 Hazard Mitigation Planning Team

The Borough of Branchville 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).

Primary Point of Contact		Alternate Point of Contact			
Name / Title: Jeff Lewis, OEM Coordinator Address: 5 Main Street, P.O. Box 840, Branchville, NJ 07826 Phone Number: (973) 479-7203 Email: jlewis310@embarqmail.com		Name / Title: Kate Leissler, Borough Clerk Address: 5 Main Street, P.O. Box 840, Branchville, NJ 07826 Phone Number: (973) 948-4626 Email: branchvilleclerk@yahoo.com			
NFIP Floodplain Administ Name / Title: Dave Simmons Address: 17 Plains Road Aug Phone Number: (973) 948-64 Email: DSimmons@hpellow.					
Name	Title	Method of Participation			
Jeff Lewis	Emergency Management Coordinator	Primary point of contact, attended the annex training, risk assessment meeting and mitigation workshop; assisted with annex development by providing data and information; updated the mitigation strategy development; reviewed annex*			
Kate Leissler	Borough Clerk	Alternate point of contact			
Dave Simmons	Consultant/Engineer	NFIP floodplain administrator			
Anthony Frato Sr.	Mayor	Reviewed annex*			
Harold E. Pello	Consultant/Engineer and Land Use Planner	Reviewed annex*			
Christine Rolef	Fiscal/CFO	Reviewed annex*			
Mike Robinson	Construction Official	Reviewed annex*			
Michel Little	Public Works Director	Reviewed annex*			
Lt. J. Shotwell	Police Station Commander	Reviewed annex*			
Jon Frato	Fire Chief	Reviewed annex*			

## Table 9.4-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





## 9.4.2 Jurisdiction Profile

The Borough of Branchville is located in northwestern Sussex County and surrounded entirely by the Township of Frankford. Culvers Creek and Dry Brook both flow through the Borough. The Borough has a total area of 0.6 square miles.

According to the U.S. Census, the 2010 population for the Borough of Branchville was 841. The estimated 2018 population was 896, a 6.5 percent increase from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 6.9 percent of the population is 5 years of age or younger and 14.3 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.

## 9.4.3 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 9.4-2 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.

Type of Development	2	015	2	016	2	017	2	018	2	2019
N	Number (	of Building	Permits	for New C	onstructi	on Issued Si	nce the <b>I</b>	Previous HN	/IP	
	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		TypeLocationDescriptionof# of Units /(address and/orKnown HazardStatus ofelopmentStructuresblock and lot)Zone(s)*Developmen				itus of				
	<b>Recent Major Development and Infrastructure from 2015 to Present</b>									
	None									
Kno	own or A	nticipated	Major D	evelopmen	t and Infi	rastructure	in the Ne	ext Five (5)	Years	
				None a	inticipate	d				

## Table 9.4-2. Recent and Expected Future Development

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

SFHA = Special Flood Hazard Area

# 9.4.4 Capability Assessment

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

		Authority that		been integra	ts of the HMP ated into your ances/plans?		
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.		
Codes, Ordinances, & Requirements							
Building Code	Yes	State & Local	Yes	Yes	-		
<ul> <li>State mandated on local level under NJA Adopted 9/3/2019</li> <li>The Mayor and Council are responsible et seq.).</li> </ul>	<ul> <li>Adopted 9/3/2019</li> <li>The Mayor and Council are responsible for this code in compliance with State Uniform Construction Code Act (N.J.S. 52:27D-119</li> </ul>						
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-		
<ul> <li>State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and m</li> </ul>	<ul> <li>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.</li> <li>The Mayor and Council are responsible for this code in compliance with Chapter 123- Zoning. New zoning procedures recognize</li> </ul>						
Subdivisions	Yes	State	Yes – if municipality has a Planning Board	Yes	-		
Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance r the filing of such plats with the county re condition for the issuance of a permit for or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b.	equire approval of ecording officer an r any development exempt from such s the planning board	subdivision plats by re ad approval of site plans , except that subdivision ite plan review and app d whenever the board o	solution of the p s by resolution of n or individual lo proval; provided f adjustment has	lanning board as f the planning bo ot applications fo that the resolutions jurisdiction over	a condition for ard as a r detached one on of the board r a subdivision		

 Table 9.4-3.
 Planning, Legal and Regulatory Capability



		Authority that		been integra	cts of the HMP rated into your nances/plans?	
	Do you have (F this? Reg (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
<ul> <li>any county having a county planning bo county planning board and for the appro limited hereinafter in this section.</li> <li>The Mayor and Council are responsible</li> </ul>	oval of those subdi	visions affecting count	y road or draina	ge facilities as se		
Stormwater Management	Yes	Local	Yes	Yes	-	
Comment: See Title 7 of the NJ Administrative Coa The Mayor and Council are responsible Ecode Chapter 121 Stormwater Manage Borough of Branchville 3-15-2006 by O	for this ordinance ement: https://ecod	e360.com/8956544. Ad	opted by the Ma	yor and the Cour	acil of the	
Post-Disaster Recovery	No	-	No	-	-	
Comment:						
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-	
(POS) approved by the New Jersey Real improvements, fees for services and ame schools, fire and police, as well as any h Growth Management	enities, the type of t	title and ownership inte	rest being offere			
Growin Management	Yes	Local	nas a Planning Board	Y es	-	
<ul> <li>Comment:</li> <li>State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make</li> <li>The Mayor Council is responsible for th natural hazard areas.</li> </ul>	lineation of Growt is the Plan Endorse	h Areas and Environs; ement process a growth	Use of the endor management st	rsed plans in the s rategy.	implementation	
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
Comment: • Dictated by the Municipal Land Use Law review. NJ Statute 40:27-6.2: The board subdivisions of land within the county by road or drainage facilities as set forth a shall have a complete file of the plannin with the county planning board a copy of this act and shall notify the county plann affects lands adjoining county roads or facilities or public lands shown on the c planning board at least 10 days prior to official notice of the public hearing toge • The Mayor and Council are responsible	l of any county hav v said county plan nd limited hereina, g and zoning ordin f the planning and ning board of the in other county lands ounty master plan the public hearing ther with a copy oj	ing a county planning b ning board and for the fter in this section. 40:. ances of all municipali zoning ordinances of the throduction of any revi- s, or lands lying within or official county map. thereon by personal do f the proposed ordinance	board shall prov approval of thos 27-6.10 In order ties in the count the municipality sion or amendm 200 feet of a mu Such notice sha elivery or by cer re.	vide for the review re subdivisions af that county plan y, each municipa in effect on the eff ent of such an or unicipal boundar all be given to the	w of all Jecting county ning boards l clerk shall file Jective date of dinance which v, or proposed e county	
Environmental Protection	No	-	No	-	-	
Comment:						
Flood Damage Prevention	Yes	Local	Yes	Yes	2021- Branchville- 005	
Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of J floodplain ordinances of each municipal	lood losses. They	do not require local ad	option but as enj	forced by the NJI	P) are state and DEP, the	



					ts of the HMP Ited into your
		Authority that			ances/plans?
	D 1	enforces	To date	16 h2	If no - add
	Do you have this?	(Federal, State, Regional, County,	Is this State	If yes- how? Describe in	Mitigation Action #, if
	(Yes/No)	Local)	Mandated?	comments.	applicable.
the NFIP requires a floodplain ordinance effective June 20, 2016.	e. Regulations for	r the Flood Control Haz	ards Act were a	dopted in 2007 a	nd amended
The Mayor and Council are responsible					
purpose of this chapter, to promote the p flood conditions in specific areas by pro			and to minimize	e public and prive	ite losses due to
• Protect human life and health	h; Minimize expen	diture of public money j	for costly flood o	control projects;	Minimize the
need for rescue and relief eff public; Minimize prolonged					
gas mains, electric, telephone	e and sewer lines,	streets and bridges loca	ited in areas of s	special flood haze	ard; Help
maintain a stable tax base by minimize future flood blight a					
hazard; and Ensure that thos	e who occupy the	areas of special flood h	azard assume re	esponsibility for th	heir actions.
<ul> <li>Damage of any origin sustained by a str equal or exceed 50% of the market value</li> </ul>				efore-damaged co	ondition would
Wellhead Protection	No	-	No	-	-
Comment:					
Emergency Management	No	-	No	-	-
Comment:					
Climate Change	No	-	No	-	-
Comment:					
Disaster Recovery Ordinance	No	-	No	-	-
Comment:		1		1	
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:		1		1	
Municipal Separate Storm Sewer System (MS4)	Yes	Local	Yes	Yes	-
Comment: • The Mayor and Council are responsible	for this ordinance	in compliance with Ch	anton 111 Sou	ago Dianogal Su	toms
Individual.	jor this orainance		upier 144 – Sew	uge Disposai sys	iems,
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	No	Yes	-
Comment:					
The Borough is responsible for these ord Flooding and Standing Water.	dinances in compli	ance with Chapter 111	– Trees and Shr	ubbery and Chap	oter 131 –
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
Comment:					
• 2018 Revised NJ Statute 40:27-2; the co the county. The master plan of a county,					
show the county planning board's recon	mendations for th	e development of the te	erritory covered	by the plan, and	may include,
among other things, the general locatio developments, parkways, playgrounds, f					
the general location and extent of forest.	s, agricultural are	as, and open-developm	ent areas for pu	rposes of conserv	vation, food and
water supply, sanitary and drainage fac important to the development of the cour					
municipalities within the county in any n	natters whatsoever	which may concern the	e integrity of the	county master p	lan and to
advise the board with respect to the form Municipal Land Use Law (MLUL) L. 19					
Master Plan and requires that each mun	icipality prepare d	a master plan and updat	te it every 6 year	rs. Further, all ze	
<ul> <li>ordinances must be consistent with the N</li> <li>The Mayor and Council are responsible</li> </ul>					
Capital Improvement Plan	Yes	Local	No	No	-





		Authority that		been integra	s of the HMP ted into your ances/plans?
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment: The Mayor and Council are responsible	for this plan in co	ompliance with Code Ch	napters: Chapter	104-В.	
Disaster Debris Management Plan	No	-	No	-	2021- Branchville- 003
Comment:					
Floodplain or Watershed Plan	Yes	County	No	Yes	-
Comment: • The Mayor and Council are responsible	for this plan Wat	er Resources Plan for th	he Delaware Riv	er Rasin (Rasin I	Plan)
Stormwater Management Plan	Yes	Local	Yes	Yes	
<ul> <li>the required components of regional and design and performance standards for n include groundwater recharge, runoff que consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge, of major development to be located with without prior authorization from the Dep</li> <li>The Mayor and Council are responsible.</li> </ul>	ew (proposed) dev uantity controls, au tormwater manag of stormwater pip stormwater runoj in or to discharge partment under the	velopment. The design a nd runoff quality contro ement techniques includ es, preserving natural d ff quantity control, storr runoff from the major d e Flood Hazard Area Co	nd performance ols. The rules em ling minimizing drainage feature nwater runoff qu development into ontrol Act Rules	standards for ne phasize, as a prin disturbance, min s, etc. The rules a uality control, and a 300-foot ripar , N.J.A.C. 7:13.	w development nary imizing Iso set forth I the prohibition
Stormwater Pollution Prevention Plan	Yes	Local	Yes	Yes	_
Comment: • The Phase II New Jersey Pollutant Disc. 7:14A) were published in the February 2 associated with existing stormwater run	2, 2004, NJ Registe	er. These NJPDES rules	s are intended to	address and red	uce pollutants
<ul> <li>The Phase II New Jersey Pollutant Disc. 7:14A) were published in the February 2 associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will management plan and implementing ordinances)</li> </ul>	2, 2004, NJ Registo off. The NJPDES I tter Act. These NJI sewer systems, kn such as universiti am establishes the ses sources. The SI dlife feeding, prop linance(s); requiri	er. These NJPDES rules rules establish a regulat PDES rules govern the i own as MS4s. Under th ies and hospitals, and Si o Statewide Basic Requires tatewide Basic Requires oer waste disposal, etc.), ng certain maintenance	s are intended to tory program for issuance of pern is program, pern tate, interstate a rements that mu, ments include mo ; the development activities (such	address and red existing stormwa its to entities tha nits must be secu nd federal agenci st be implemented easures such as: 1 as street sweepin	uce pollutants ater discharges t own or red by es that operate l to reduce he adoption of stormwater g and catch
<ul> <li>The Phase II New Jersey Pollutant Disc. 7:14A) were published in the February 2 associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will</li> </ul>	2, 2004, NJ Registo off. The NJPDES I tter Act. These NJI sewer systems, kn such as universiti am establishes the ses sources. The SI dlife feeding, prop linance(s); requiri	er. These NJPDES rules rules establish a regulat PDES rules govern the i own as MS4s. Under th ies and hospitals, and Si o Statewide Basic Requires tatewide Basic Requires oer waste disposal, etc.), ng certain maintenance	s are intended to tory program for issuance of pern is program, pern tate, interstate a rements that mu, ments include mo ; the development activities (such	address and red existing stormwa its to entities tha nits must be secu nd federal agenci st be implemented easures such as: 1 as street sweepin	uce pollutants tter discharges t own or red by es that operate l to reduce he adoption of stormwater g and catch
<ul> <li>The Phase II New Jersey Pollutant Disc. 7:14A) were published in the February 2 associated with existing stormwater rund as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will management plan and implementing ora basin cleaning); implementing solids and</li> </ul>	2, 2004, NJ Registo off. The NJPDES I tter Act. These NJI sewer systems, kn such as universiti am establishes the ses sources. The SI dlife feeding, prop linance(s); requiri	er. These NJPDES rules rules establish a regulat PDES rules govern the i own as MS4s. Under th ies and hospitals, and Si o Statewide Basic Requires tatewide Basic Requires oer waste disposal, etc.), ng certain maintenance	s are intended to tory program for issuance of pern is program, pern tate, interstate a rements that mu, ments include mo ; the development activities (such	address and red existing stormwa its to entities tha nits must be secu nd federal agenci st be implemented easures such as: 1 as street sweepin	uce pollutants tter discharges t own or red by es that operate l to reduce he adoption of stormwater g and catch
The Phase II New Jersey Pollutant Disc. 7:14A) were published in the February 2 associated with existing stormwater rund as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will management plan and implementing oral basin cleaning); implementing solids an education component. Urban Water Management Plan	2, 2004, NJ Registo off. The NJPDES I tter Act. These NJI sewer systems, kn such as universiti am establishes the se sources. The St dlife feeding, prop linance(s); requiri d floatables contro	er. These NJPDES rules rules establish a regulat PDES rules govern the i own as MS4s. Under th ies and hospitals, and Si o Statewide Basic Requires tatewide Basic Requires oer waste disposal, etc.), ng certain maintenance	s are intended to tory program for issuance of pern is program, pern tate, interstate a rements that mu. ments include ma ; the developmen activities (such oints and stencio	address and red existing stormwa its to entities tha nits must be secu nd federal agenci st be implemented easures such as: 1 as street sweepin	uce pollutants tter discharges t own or red by es that operate l to reduce he adoption of stormwater g and catch
The Phase II New Jersey Pollutant Disc. 7:14A) were published in the February 2 associated with existing stormwater rund as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will management plan and implementing oral basin cleaning); implementing solids an education component. Urban Water Management Plan	2, 2004, NJ Registo off. The NJPDES I tter Act. These NJI sewer systems, kn such as universiti am establishes the se sources. The St dlife feeding, prop linance(s); requiri d floatables contro	er. These NJPDES rules rules establish a regulat PDES rules govern the i own as MS4s. Under th ies and hospitals, and Si o Statewide Basic Requires tatewide Basic Requires oer waste disposal, etc.), ng certain maintenance	s are intended to tory program for issuance of pern is program, pern tate, interstate a rements that mu. ments include ma ; the developmen activities (such oints and stencio	address and red existing stormwa its to entities tha nits must be secu nd federal agenci st be implemented easures such as: 1 as street sweepin	uce pollutants tter discharges t own or red by es that operate l to reduce he adoption of stormwater g and catch
The Phase II New Jersey Pollutant Disc. 7:14A) were published in the February 2 associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will management plan and implementing ord basin cleaning); implementing solids and education component. Urban Water Management Plan Comment:	2, 2004, NJ Registo off. The NJPDES I tter Act. These NJI sewer systems, kn. such as universiti am establishes the ese sources. The S. dlife feeding, prop linance(s); requiri d floatables contro No	er. These NJPDES rules rules establish a regulat PDES rules govern the i own as MS4s. Under th ies and hospitals, and Si o Statewide Basic Requires tatewide Basic Requires oer waste disposal, etc.), ng certain maintenance	s are intended to tory program for issuance of pern is program, pern tate, interstate a rements that mu, ments include mu; the developmen o activities (such oints and stencia No	address and red existing stormwa its to entities tha nits must be secu nd federal agenci st be implemented easures such as: 1 as street sweepin	uce pollutants tter discharges t own or red by es that operate l to reduce he adoption of stormwater g and catch
The Phase II New Jersey Pollutant Disc. 7:14A) were published in the February 2 associated with existing stormwater rund as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will management plan and implementing oral basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan	2, 2004, NJ Registo off. The NJPDES I tter Act. These NJI sewer systems, kn. such as universiti am establishes the ese sources. The S. dlife feeding, prop linance(s); requiri d floatables contro No	er. These NJPDES rules rules establish a regulat PDES rules govern the i own as MS4s. Under th ies and hospitals, and Si o Statewide Basic Requires tatewide Basic Requires oer waste disposal, etc.), ng certain maintenance	s are intended to tory program for issuance of pern is program, pern tate, interstate a rements that mu, ments include mu; the developmen o activities (such oints and stencia No	address and red existing stormwa its to entities tha nits must be secu nd federal agenci st be implemented easures such as: 1 as street sweepin	uce pollutants tter discharges t own or red by es that operate l to reduce he adoption of stormwater g and catch
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		Authority that		been integra	ts of the HMP ated into your ances/plans?	
	<b>Do you have</b> <b>this?</b> (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated? No	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
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	No	-	No	-	-	
Comment:				I.		
Response/Recovery Planning						
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-	
<ul> <li>Each county and municipality in the Stancessary to implement the plan. Each Emergency Planning Guidelines have be subsequent scheduled review of the State</li> <li>The Mayor, Council, and Office of Emergency</li> </ul>	Emergency Operat een adopted by the e Emergency Oper	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2	ted no later than ncy Managemen 222, s.19.	i one year after th	he State	
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	State	No	Yes	-	
Assessment (THIRA)       Ite       Ite       Ite         Comment:       •       According to 44 CFR 201.4 (c)(2), states are required to undertake a risk assessment that provides the factual basis for developing a mitigation strategy. The State of New Jersey risk assessment shall include an overview of the location of all-natural hazards that can affect the State, including information on previous occurrences of hazard events as well as the probability of future hazard events, using maps where appropriate.         •       All information on the risk assessment can be found in Section 5, as well as the referenced supporting appendices. For ease of review, the vulnerability assessment follows each hazard profile, so that all information about a specific hazard is continuous. This section describes the identification of hazards, Presidential disaster declarations, hazard profiles, and the vulnerability assessment.						
Post-Disaster Recovery Plan	No	-	No	-	-	
Comment:						
Continuity of Operations Plan	No	-	No	-	-	
Comment:						
Public Health Plan	No	-	No	-	-	
Comment:						
Other Plans	No	-	No	-	-	
Comment:						

## Table 9.4-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Zoning Department





Criterion	Response
Does your jurisdiction have the ability to track permits by hazard area?	Yes
Does your jurisdiction have a buildable lands inventory? -If yes, please describe briefly. -If no, please quantitatively describe the level of buildout in the jurisdiction.	Yes, the Borough completed a Housing Element and a buildable lands inventory.

#### ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Table 9.4-5.	Administrative	and Technical	Capabilities
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Staff/Personnel Resource	Available?	Department/Agency/Position		
Administrative Capability				
Planning Board	Yes	Planning Board		
Mitigation Planning Committee	No	Mayor & Council		
Environmental Board / Commission	No	Mayor & Council		
Open Space Board / Committee	No	Mayor & Council		
Economic Development Commission / Committee	No	Mayor & Council		
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	OEM- Reverse 9-1-1; Borough Clerk		
Maintenance program to reduce risk	No	Mayor & Council		
Mutual aid agreements	Yes	Mayor Council OEM Fire Chief		
Technical/Staffing Capability				
Planners or engineers with knowledge of land development and land management practices	Yes	Mayor & Council		
Engineers or professionals trained in building or infrastructure construction practices	Yes	Mayor & Council		
Planners or engineers with an understanding of natural hazards	Yes	Mayor & Council		
Staff with training in benefit/cost analysis	No	-		
Staff with training in green infrastructure	Yes	Harold Pellow & Associates		
Staff with education/knowledge/training in low impact development	Yes	Harold Pellow & Associates		
Surveyor	Yes	Mayor & Council		
Stormwater engineer	Yes	Harold Pellow & Associates		
Personnel skilled or trained in GIS applications	No	State		
Local or state water quality professional	Yes	Harold Pellow & Associates		
Scientist familiar with natural hazards in local area	No	State		
Emergency manager	Yes	OEM		
Watershed planner	No	-		
Environmental specialist	No	-		
Grant writers	No	-		
Resilience Officer	No	-		
Other: NFIP Floodplain Administrator	Yes	Construction Official		
Other: Professionals trained in conducting damage assessments	Yes	Mayor & Council		

#### FISCAL CAPABILITY





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

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

#### EDUCATION AND OUTREACH CAPABILITY

The table below summarizes the education and outreach resources available to the Borough of Branchville.

#### Table 9.4-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes- Clerk, Mayor, OEM
Do you have personnel skilled or trained in website development?	Yes- Clerk, Outside contractor
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	Yes- if needed, flooding and hazard events can be added
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- Borough newsletter

#### **COMMUNITY CLASSIFICATIONS**

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

#### Table 9.4-8. 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	6/10	Not known
Storm Ready Certification	No	-	-





Program	Participating?	Classification	Date Classified	
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.

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

## Table 9.4-9. Adaptive Capacity

Notes:

Strong = Capacity exists and is in use; Moderate = Capacity may exist, but is not used or could use some improvement;

Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

#### NATIONAL FLOOD INSURANCE PROGRAM

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

#### Table 9.4-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Engineering
Who is your floodplain administrator? (name, department/position)	Dave Simmons, Consultant/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?	August 3, 2011
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets minimum requirements.





Criterion	Response
When was the most recent Community Assistance Visit or Community Assistance Contact?	None
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 training and/or continuing education training if 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. However, the Borough would attend a CRS seminar if offered locally.
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	4 policies \$1,291,000 insurance in force \$2,036 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	9 claims \$57,589 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

\*According to FEMA statistics as of October 13, 2020

#### 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 Branchville'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 9.4-11 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.

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 Weather and Snowstorm	Yes	A major nor'easter, produced record snowfall and blizzard conditions in parts of New Jersey on January 23 <sup>rd</sup> and 24th.	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.

#### Table 9.4-11. Hazard Event History

Source: FEMA 2020, NOAA NCEI 2020





## 9.4.5 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 Branchville 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 Branchville 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 Branchville has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

The following summarizes the repetitive and severe repetitive flood losses in the Borough of Branchville.

- Number of repetitive loss (RL) properties: 2
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

#### Source: FEMA 2019 Note: The number of SRL properties excludes RL properties.

#### **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 9.4-12. Critical Facilities and Lifelines Flood Exposure

		Exposure			
Name	Туре	1% Event 0.2% Ever			
None identified					

Source: Sussex County Planning Partnership 2020

#### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- The town hall and well house do not have adequate backup power to operate during a hazard event. The town hall is an essential facility that acts as the emergency operation center for the municipality, while the well house is critical for public utilities that are required to be fully operating at all times.
- The existing embankments along Dry Brook are relatively low and are prone to overflow, causing potential widespread flooding to surrounding properties. In previous years, due to Severe Weathers, the brook has flooded main roads entering and existing town, in addition to forcing hundreds of residents to evacuate.
- The municipality has previously experienced severe flooding in its brooks and streams that pass through the borough, including Dry Brook and Culvers Creek. In one year, the municipality experienced all in and outbound road closures due to stream flooding and a hundred residents forced to evacuate their





homes as a result. The resulting debris from these types of events continue to be an issue to the municipality.

- There are two repetitive loss properties that are located in a 100-year flood zone.
- The Borough's Flood Damage Prevention Ordinance does not have any information in regard to the state's one foot 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 Borough of Branchville 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 Branchville. The Borough of Branchville 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 Branchville assented to the proposed hazard ranking based on updated data. Dam failure, earthquake, and wildfire were reduced from "Medium" to "Low", and Hazardous Materials was reduced from "High" to "Medium".

## Table 9.4-13. Borough of Branchville Hazard Ranking

Dam Failure	Disease Outbre	ak Drought	Earthqu	Earthquake F		Flood	Geologic
Low	Medium	Medium	Low		w Medium		Medium
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter		ere ther	Severe Winter Weather	Wildfire
Medium	High	Medium	High	Hi	gh	High	Low

## 9.4.6 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 9.4-15 and Table 9.4-16 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.





			Status (In Progress, No		n the 2021 HMP Update?
2016 Action	Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Branchville-1 (old #3)	Raise embankments along 70 feet of the Dry Brook near Borough baseball field.	Borough Engineer	In Progress	х	2021-Branchville- 002
Branchville-2 (new)	Future rezoning procedures will recognize natural hazard areas that will allow greater intensity or density of use.	Borough Administration	Ongoing Capability		
Branchville-3 (new)	Establish a community resilience committee and advisor.	Borough Administration	No Progress		
Branchville-4 (new)	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood- proofing) or acquisition/relocation to protect structures from future damage, with repetitive loss and severe repetitive loss properties as a priority when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option. Phase 2: Work with the property owners to implement selected action based on available funding and local match availability.	Engineering via NFIP FPA with NJOEM, FEMA support	In Progress	X	2021- Branchville-004
Branchville-5 (revised old #6)	Provide information on all types of hazards, preparedness and mitigation measures, and responses on the Borough website.	Borough	Completed		

Table 9.4-14	Status of Previous H	IMP Mitigation Actions
--------------	----------------------	------------------------

In addition to the above progress, the Borough of Branchville 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 Branchville 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 Branchville 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 9.4-15 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Branchville 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 9.4-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.4-15. Proposed Hazard Mitigation Initiatives

Initiativ e 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- Branchvil le-001	Generator Installation	<ul> <li>Problem: The Borough Hall and well house do not have adequate backup power to operate during a hazard event. The town hall is an essential facility that acts as the emergency operation center for the municipality, while the well house is critical for public utilities that are required to be fully operating at all times.</li> <li>Solution: The Borough would like to install 3 phase multi-fuel source generators to power each respective</li> </ul>	New	Severe Weather, Severe Winter	1, 3, 5, 6	Borough Engineer	HMGP, BRIC, municipal funding	Contin ued operati ons	\$200 k	3 ye ars	Hig h	SIP	PP, ES
		facility. The Borough engineer would need to conduct a needs assessment to determine the technical energy capacity needed before determining the proper generator needed for installation. The engineer would then be tasked to purchase and install the generator at each facility. The Borough board shall assist as needed.		Weather									
2021- Branchvil le-002	Dry Brook Embankments	<b>Problem</b> : The existing embankments along Dry Brook are relatively low and are prone to overflow, causing potential widespread flooding to surrounding properties. In previous years, due to severe storm events, the brook has flooded main roads entering and existing town, in addition to forcing hundreds of residents to evacuate.	Existing	Flood	1, 2, 3, 5	Borough DPW/ Engineer	HMGP, BRIC, municipal	Reduc ed floodin g along	Medi um	3 ye ars	Hig h	SIP, NSP	SP, NR
		<b>Solution:</b> The Borough DPW and engineer will raise embankments along 70 feet of the Dry Brook near Borough baseball field. This will decrease flooding within the municipality and reduce overflow of creek during extreme weather events.					budget	Dry Brook					
2021- Branchvil le-003	Disaster Debris Management Plan	<b>Problem</b> : The Borough has previously experienced severe flooding in its brooks and streams that pass through the borough, including Dry Brook and Culvers Creek. In one year, the	Existing	All Hazards	2, 3, 4, 5, 6	Borough Engineer & DPW	Borough Funds	Facilit ate munici pal recove	Medi um	1 ye ar	Hig h	LPR	PR





## Section 9.4 – Borough of Branchville

Initiativ e 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
		<ul> <li>municipality experienced all in and outbound road closures due to stream flooding and a hundred residents forced to evacuate their homes as a result. The resulting debris from these types of events continue to be an issue to the municipality.</li> <li>Solution: The Borough will develop a</li> </ul>						r from disaste r.					
		disaster debris management plan that can be used to properly manage the debris after Severe Weathers and flooding. Having specific guidance can help municipal and business owners determine what needs to be done with excess debris. The Borough board shall lead the initiative to develop this plan, along with assistance from the DPW and engineer for technical guidance.											
2021- Branchvil le-004	Repetitive Loss Properties	<b>Problem</b> : Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has 2 repetitive loss properties but other properties may be impacted by flooding as well.	Existing	Flood, Severe Weather	1, 2, 3, 4, 5, 6, 7	NFIP Floodplain Administra tor, supported by homeowner s	FEMA HMGP and FMA, local cost share by residents	Elimin ates flood damag e to homes and residen	Low	3 ye ars	Hig h	SIP	РР
		Solution: Conduct outreach to 10 flood- prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property- owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).						ts, creates open space for the munici pality increas ing flood storage					
2020- Branchvil le-005	Incorporate Freeboard into FDPO	<b>Problem:</b> The Borough's Flood Damage Prevention Ordinance does not have any information in regard to the state's mandated freeboard requirement.	Existing	Flood	1, 2, 3, 4, 5, 6, 7	Borough Board	Municipal Budget	State Compl iance	Low	1 ye ar	Hig h	LPR	PR





#### Section 9.4 - Borough of Branchville

Initiativ e Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s ) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		Solution: The municipality will update its flood damage prevention ordinance using the model flood prevention ordinance from the State of New Jersey Department of Environmental Protection: https://www.nj.gov/dep/floodcontrol/mo delord.htm											

Building Resilient Infrastructure and Communities

Flood Mitigation Assistance Grant Program

Hazard Mitigation Grant Program

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

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.

Potential FEMA HMA Funding Sources:

BRIC

FMA

HMGP

- 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.



The time required for completion of the project upon implementation

<u>Cost:</u>

The estimated cost for implementation.

Benefits:

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

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 / Mediu m / Low
2021- Branchville- 001	Generator Installation	1	1	1	1	1	1	-1	0	0	1	1	1	1	0	9	High
2021- Branchville- 002	Dry Brook Embankments	1	1	1	0	1	1	-1	1	1	1	1	1	0	1	10	High
2021- Branchville- 003	Disaster Debris Management Plan	1	1	1	0	1	1	0	1	1	0	1	1	1	1	11	High
2021- Branchville- 004	Repetitive Loss Properties	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2021- Branchville- 005	Incorporate Freeboard into FDPO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	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.



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

#### Table 9.4-17. Analysis of Mitigation Actions by Hazard and Category

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard





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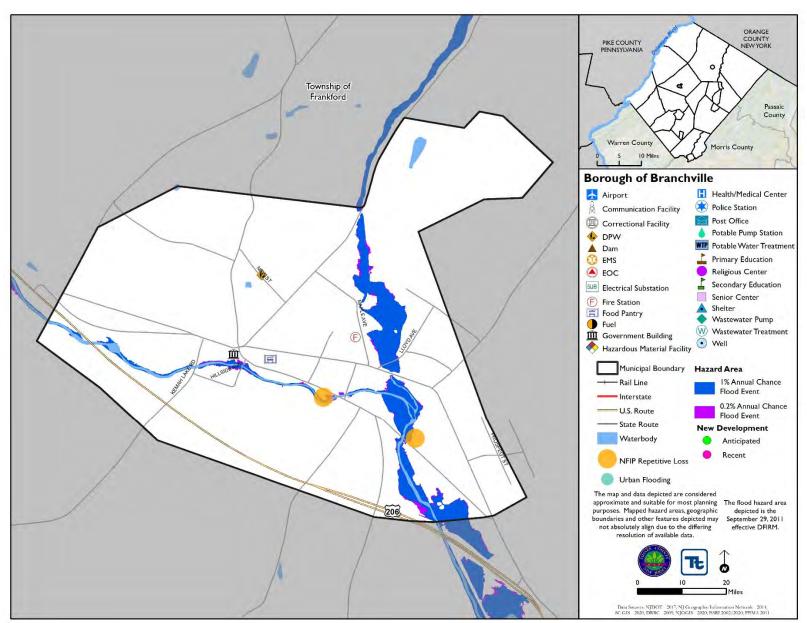


Figure 9.4-1. Borough of Branchville Hazard Area Extent and Location Map 1



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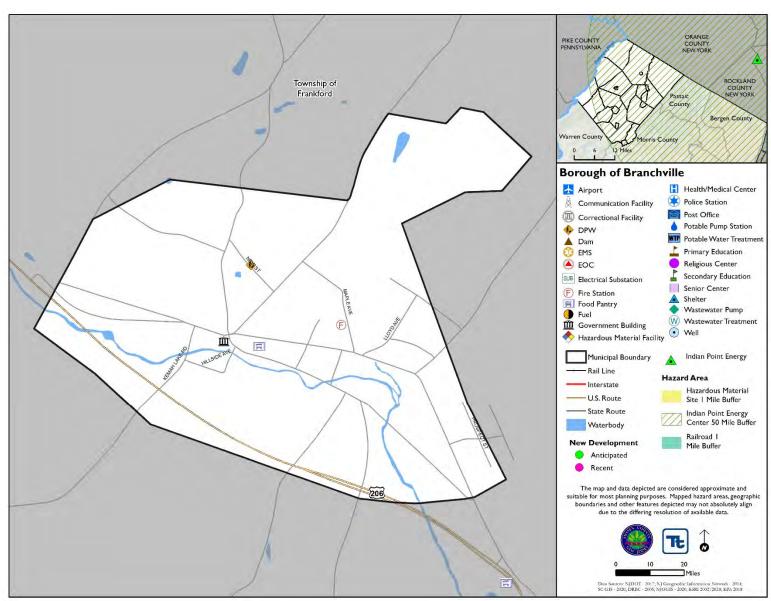
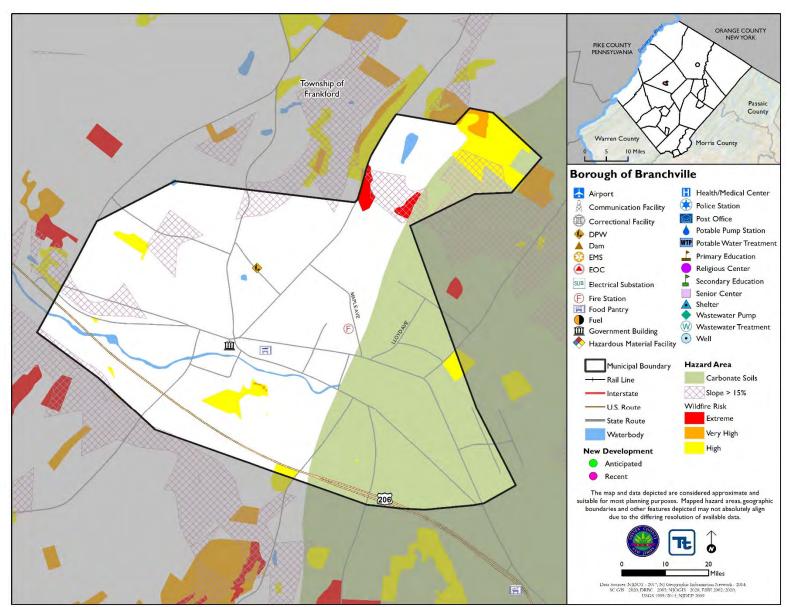


Figure 9.4-2. Borough of Branchville Hazard Area Extent and Location Map 2



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## Figure 9.4-3. Borough of Branchville Hazard Area Extent and Location Map 3



	Α	ction W	orksheet	;					
Project Name:	Generator Installatio	n							
Project Number:	2021-Branchville-00	1							
	Ri	sk / Vul	nerabilit	y					
Hazard(s) of Concern:	Severe Weather, Seve	ere Wint	er Weath	er					
Description of the Problem:	a hazard event. The H operation center for that are required to h	he Borough Hall and well house do not have adequate backup power to operate during hazard event. The Borough Hall is an essential facility that acts as the emergency peration center for the municipality, while the well house is critical for public utilities hat are required to be fully operating at all times.							
	Action or Projec								
Description of the Solution:	respective facility. The determine the techni generator needed for install the generator	ne Borou ical ener r installa	igh engine gy capaci ition. The	eer would need to co ty needed before det engineer would ther	be tasked to purchase and				
Is this project related to a C Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌					
Level of Protection:	500-year flood			ed Benefits avoided):	Continued operations				
Useful Life:	20 years		Goals M	et:	1, 3, 5, 6				
Estimated Cost:	\$100k for each		_	on Action Type:	Structural and Infrastructure Projects				
	Plan	for Imp	lementa						
Prioritization:	High		Desired Timeframe for Implementation:		6 months once funding secured				
Estimated Time Required for Project Implementation:	3 years		Potenti Sources	al Funding ::	HMGP; BRIC; municipal budget				
Responsible Organization:	Borough Engineer		in Impl	isms to be Used ementation if any:	Hazard mitigation				
	Three Alternatives	Consid							
	Action	CC:	Es	timated Cost	Evaluation				
Alternatives:	Develop backup o space/ new facility tl backup power	hat has		High	Staff would need to relocate during storm – not feasible				
Anter nutives.	Purchase solar power			High	Expensive and subject to weather				
	Backup power sou			Medium	Least expensive and continued operation				
	Progress Rej	port (fo	r plan ma	intenance)					
Date of Status Report:									
Report of Progress:									
Update Evaluation of the Problem and/or Solution:									





	Acti	on Worksheet
Project Name:	Generator Installation	
Project Number:	2021-Branchville-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	The increases resilience of critical facility
Property Protection	1	The increases resilience of critical facility
Cost-Effectiveness	1	This project is cost effective
Technical	1	The municipality has the ability to determine generator needs
Political	1	There is no political opposition
Legal	1	There are no legal challenges
Fiscal	-1	The municipality needs funding
Environmental	0	There are no adverse impacts on the environment
Social	0	This has no negative social impact
Administrative	1	
Multi-Hazard	1	This addresses multiple hazards
Timeline	1	The project is feasible within the given timeframe
Agency Champion	1	Borough Engineer
Other Community Objectives	0	None at this time
Total	9	
Priority (High/Med/Low)	High	

\_\_\_\_\_





	Α	ction W	orkshee	t						
Project Name:	Dry Brook Embankm	ients								
Project Number:	2021-Branchville-00	2								
	Ri	sk / Vul	nerabili	ty						
Hazard(s) of Concern:	Flood									
Description of the Problem:	overflow, causing po years, due to severe	The existing embankments along Dry Brook are relatively low and are prone to verflow, causing potential widespread flooding to surrounding properties. In previous ears, due to severe weather events, the brook has flooded main roads entering and xisting town, in addition to forcing hundreds of residents to evacuate.								
	Action or Project	ct Inten	ded for I	mplementation						
Description of the Solution:		all field. '	This will	decrease flooding w	along 70 feet of the Dry Brook ithin the municipality and					
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂						
Level of Protection:	500-year storm			ted Benefits avoided):	Reduced flood loss					
Useful Life:	30 years		Goals N	/let:	1, 2, 3, 5					
Estimated Cost:	Medium		_	tion Action Type:	Structural and Infrastructure Projects/ Natural System Protection					
	Plan	for Imp	lementa							
Prioritization:	High			d Timeframe for nentation:	6 months once funding secured					
Estimated Time Required for Project Implementation:	1 year		Potenti Source	ial Funding s:	HMGP, BRIC; municipal budget					
Responsible Organization:	Borough Engineer, D	PW	Mecha	lanning nisms to be Used lementation if any:	Mitigation					
	Three Alternatives	Consid								
	Action		E	stimated Cost	Evaluation					
	Raise all roads to pr future flooding			High	Cost too high and unreasonable					
Alternatives:	Bury Dry Creek			High	Cost too high and unreasonable					
	Increase embarkn height			Low-Medium	Best solution					
	Progress Re	port (fo	r plan m	aintenance)						
Date of Status Report:										
Report of Progress:										
Update Evaluation of the Problem and/or Solution:										





	Acti	on Worksheet
Project Name:	Dry Brook Embankments	
Project Number:	2021-Branchville-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	The increases resilience of critical facility
Property Protection	1	The increases resilience of critical facility
Cost-Effectiveness	1	This project is cost effective
Technical	0	The municipality has the ability to design solution
Political	1	
Legal	1	
Fiscal	-1	The municipality needs funding
Environmental	1	There are no adverse impacts on the environment
Social	1	This has no negative social impact
Administrative	1	
Multi-Hazard	1	This addresses multiple hazards
Timeline	1	The project is feasible within the given timeframe
Agency Champion	0	Borough Engineer, DPW
Other Community Objectives	1	None at this time
Total	10	
Priority (High/Med/Low)	High	





	Α	ction W	orkshee	t	
Project Name:	Repetitive Loss Prop	erties			
Project Number:	2021- Branchville-004				
	Ri	sk / Vul	nerabili	ty	
Hazard(s) of Concern:	Flood, Severe Weath	er			
Description of the Problem:	properties have been Borough has 2 repeti flooding as well.	n repetit tive loss	ively floo s properti	ded as documented b ies but other properti	lential properties. These y paid NFIP claims. The es may be impacted by
	Action or Projec				iding RL/SRL property
Description of the Solution:	owners and provide measures are identifi FEMA grant applicati	informa ied, colle ion and 1 e/movin	tion on m ect requir BCA to ob g/elevati	nitigation alternatives red property-owner in otain funding to imple ing residential homes	After preferred mitigation formation and develop a
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂	
Level of Protection:	1% annual chance floo event + freeboard (in accordance with flood ordinance)			ted Benefits avoided):	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)		Goals M	Aet:	1, 2, 3, 4, 5, 6, 7
Estimated Cost:	\$1Million		Mitigat	ion Action Type:	Structure and Infrastructure Project
		for Imp	lementa		
Prioritization:	High			d Timeframe for nentation:	6-12 months
Estimated Time Required for Project Implementation:	Three years			ial Funding	FEMA HMGP and FMA, local cost share by residents
Responsible Organization:	NFIP Floodplain Administrator, support homeowners		Mechai in Impl	lanning nisms to be Used lementation if any:	Hazard Mitigation
	Three Alternatives	Consid			
	Action No Action		E	stimated Cost \$0	Evaluation Current problem continues
Alternatives:	Elevate homes			\$500,000	When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads
	Elevate roads			\$500,000	Elevated roadways would not protect the homes from flood damages
	Progress Rep	port (fo	r plan ma	aintenance)	
Date of Status Report:					
Report of Progress:					
Update Evaluation of the Problem and/or Solution:					





	Acti	on Worksheet
Project Name:	Repetitive Loss Properties	
Project Number:	2021- Branchville-004	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Families moved out of high-risk flood areas.
Property Protection	1	Properties removed from high-risk flood areas.
Cost-Effectiveness	1	Cost-effective project
Technical	1	Technically feasible project
Political	1	
Legal	1	The Borough has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	0	Project would remove families from the flood prone areas of the Borough.
Administrative	0	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	

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# 9.5 TOWNSHIP OF BYRAM

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

## 9.5.1 Hazard Mitigation Planning Team

The Township of Byram 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).

Primary Point of Contact		Alternate Point of Contact				
Name / Title: Joseph Sabatini, Township Manager Address: 10 Mansfield Drive, Stanhope, NJ 07874 Phone Number: (973) 347-2500 ext 129 Email: jsabatini@byramtwp.org		Name / Title: Alex Rubenstein, Mayor Address: 10 Mansfield Drive, Stanhope, NJ 07874 Phone Number: (862) 268-0288 Email: arubenstein@byramtwp.org				
NFIP Floodplain Administrator         Name / Title: Peter Karcher, Construction Official         Address: 10 Mansfield Drive, Stanhope, NJ 07874         Phone Number: (908) 416-1126         Email: pkarcher@byramtwp.org         Name       Title						
			Method of Participation			
Joseph Sabatini	Township Manager		Primary point of contact, reviewed annex*			
Alex Rubenstein	Mayor		Alternate point of contact			
Peter Karcher	Construction Official		NFIP Floodplain Administrator, reviewed annex*			
Thomas Koundry	Emergency Management Coordinator		Provided data and information, contributed to the mitigation strategy, reviewed annex*			
Phillip Crosson	Byram Township Deputy Manager		Provided data and information, contributed to the mitigation strategy			
Cory L. Stoner	Engineer		Reviewed annex*			
Ashleigh Frueholz	CFO		Reviewed annex*			
Paul Gleitz	Planner		Reviewed annex*			
Michael Orgera	Public Works Director		Reviewed annex*			
Chief Kenneth Burke	Police Chief		Reviewed annex*			
Todd Rudloff	Fire Chief		Reviewed annex*			

## Table 9.5-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B





# 9.5.2 Jurisdiction Profile

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

According to the U.S. Census, the 2010 population for the Township of Byram was 8,350. The estimated 2018 population was 8,010, a 4.1 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 4.7 percent of the population is 5 years of age or younger and 13.7 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.

# 9.5.3 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 9.5-2 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.

Type of Development	2	015	2	016	2017			2018		2019	
	Number	of Buildin	g Permi	ts for New	Constru	ction Issued	l Since the	Previous HM	Р		
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	
Single and Two- Family Units	1	0	0	0	2	0	0	0	2	0	
Multi-Family	0	0	0	0	0	0	0	0	0	0	
Other (commercial, mixed-use, etc.)	8	0	3	0	3	0	1	0	3	0	
Property or Development Name		ype of opment		Units / ctures	<b>Location</b> (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
		Recent M	lajor De	velopment	and Infr	astructure	from 2015	to Present			
Quick Check	Comm	ercial	2		Block 41 Lot 89		Nuclear Incident Hazard Area		Completed		
Kn	own or A	Anticipate	d Major	Developme	ent and I	nfrastructu	re in the N	Next Five (5) Y	ears		
WaWa	Comme	mmercial 2		2		Nuclear Incident Hazard Area				Approv Plannin 1/28/20	g Board on
Anty Trucking & Rigging	Commo	ercial	1		9 Lacka Drive	iwana	Nuclear Incident Hazard Area, Hazardous Material Incident Hazard Area		Plannin	g stages	

## Table 9.5-2. Recent and Expected Future Development

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





SFHA = Special Flood Hazard Area

## 9.5.4 Capability Assessment

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

	Have aspects of the been integrated into Authority that codes/ordinances/p					
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Codes, Ordinances, & Requirements						
Building Code	Yes	State & Local	Yes	Yes	-	
<ul> <li>State mandated on local level under NJA Adopted 9/3/2019</li> <li>This code complies with State Uniform O</li> </ul>		0	2	Edition, 2018, NJ	IAC 5:24-3.14	
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
Comment: • State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and me • The Planning Board and Township Cour	to have current zo aster plan.	oning and other land de	velopment ordin	ances after the pl		

#### Table 9.5-3. Planning, Legal and Regulatory Capability

- The code complies with Municipal Ord. Chapter 240 (4/5/79) and various amendments.



Do you have this?         Centorics Pederal, State         Is this State         If yes-how? Describe         If no- and Describe           • The ordinance includes previsions to secure safes from fire, flood, paine and other natural and man-made dates sufficient space in appropriate locations for a variety of agricultural, residential, recentiania, commercial and inhustral uses approx of them, and promote the conservation of historic sites and districts, recentiania, commercial and inhustral uses approx of them, and promote the conservation of historic sites and districts, one space, energy resources and valuable natural resources in the state and to prevent urban sprend and degradation of the environment through improper use of land.           • PL1975, c.291 (C.40, 55D-47); 40, 55D-37, Grant of prover; referral of proposed ordinance; course planning board approad the filming of uch plass with the course recording efficer and approval of subdivision or individual lot applicable or no dwelling-with hieldings shall b compression films contage approval of subdivision or individual lot applicable or observation for the issuence of a permit for any development, eccept that subdivision or individual lot applicable or a budy integes that of the planning board approval of adjustment hall substitute for that of the planning board shall provide for the relevant of and are acaditor of adjustment hall substitute for that of the planning board approval of adjustment hall substitute for that of the planning board approval or adjustitum for that of the planning board approval of adjustment hall substitute for that of the planning board shall provide for the relevant of adjust valuth the econtry by and coave planning board and for the approval of subase subdivision or individual abusthistrative Code.			Authority that		been integra	s of the HMP ted into your ances/plans?
sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and starticts, open space, energy resources and valuable natural resources in the state and to prevent urban sprovi and degradation of the environment is order to meet the one of land.           Subdivisions         Yes         Local         Wes, energy resources and valuable of land.           Subdivisions         Yes, order the environmental requiremental requiremental requirement through improper use of land.           Subdivisions         Yes, order the environmental requiremental requiremental requiremental requiremental requiremental requiremental provide in the planning board approval of star plans by resolution of the planning board and approval of star plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or indivision or distribution of the classical of detached or row dwelling-unit buildings shall be exempt from such site plan review and approval; provided that the resolution of the basic star subdivision or star division or and division or and division or and division or star divisions or and division or star divisions or diad division or distribution of the basic star subdivision appear and shall provide of the treeven of all subdivisions and divisions or diad divisions of diad divisions or diad divisions of diad divisions or diad divisions of diad divisions or diad divisions of diad divisions or diad divisions of diad divisions or diad divisions or diad divisions or d		this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	State Mandated?	Describe in comments.	If no - add Mitigation Action #, if applicable.
Subdivisions         Yes         Local         municipality Planning Board         Yes         .           Comment:         • PL.1975, c.291 (C.40.55D-47): 40:55D-37. Grant of power, referral of proposed ordinance; county planning board as a condition the filing of such plats with the county recording officer and approval of subdivision plats by resolution of the planning board as a condition or two dwelling-unit buildings shall be exempt from such site plan review and approval. provided the planning board as a condition for the issuance of a permit form on wheelowment, except that subdivision or nutwidual lot applications for detabeled 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 sort site plan pursuant to subsection 63b, of this act. Dictated by the Municipal Land Use Law. NJ Statute 40:27-62 - the board commissioners of any country having to country planning board and for the approval of those subdivisions affecting country road or drainage facilities a set forth and limited hereinafter in this section.           • The Planning Board and Township Council are responsible for this code in compliance with Chapter 240: Zoning.           • The code complies with Municipal Ord. Chapter 215 (45/79) and various amendments.           • The Township Council and NDEP are responsible for this ordinance in compliance with Chapter 211: Stormwater Control; T is Statute Disclosure           • The Township Council and NDEP are responsible for this ordinance in compliance with Chapter 211: Stormwater Control; T is Statute Disclosure           • NJ.A.C. 13:45.4-29.1 - Before signing a c	sufficient space in appropriate locations open spaces, both public and private, ac New Jersey citizens, and promote the co	s for a variety of ag cording to their re enservation of histo	gricultural, residential, espective environmental ric sites and districts, c	recreational, con requirements in open space, energ	mmercial and ina order to meet th gy resources and	lustrial uses and e needs of all valuable
PL 1975. c 291 (C 40:55D-37. Grant of power: referral of proposed ordinance: county planning board approval of subdivision plats by resolution of the planning board as a condition the filing of such plats with the county recording officer and approval of subdivision or individual lot applications for detached o or two dwelling-unit buildings shall be exempt from such site plan review and approval: provided that the resolution of the bain of bab and of adjustment shall substitute for that of the planning board whenever the board of adjustment has jurisdiction over a subdivisi 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 commissioners of any county planning board and for the approval of those subdivisions affecting county road or drainage facilities a set forth and limited hereinafter in this section.     The Planning Board and To the approval of this code in compliance with Chapter 240: Zoning.     The code complies with Municipal Ord. Chapter 211 (24/579) and various amendments.     Stormwater Management     Yes     State & Local     Yes     Yes     The Township Council and NJDEP are responsible for this ordinance in compliance with Chapter 211: Stormwater Control; T I Stormwater Permit.     Yes State Bisclosure     Yes     Yes     State Disclosure     Yes     Yes     No     No	Subdivisions	Yes	Local	municipality has a Planning	Yes	-
Stormwater Management         Yes         State & Local         Yes         Yes         -           Comment:         See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8         The Township Council and NJDEP are responsible for this ordinance in compliance with Chapter 211: Stormwater Control; T 1 Stormwater Permit (annual).         This ordinance complies with Municipal Ord. Chapter 211 (4/3/06) and annual NJDEP Tier 1 Stormwater Permit.           Post-Disaster Recovery         No         -         No         -	<ul> <li>the filing of such plats with the county recondition for the issuance of a permit for or two dwelling-unit buildings shall be of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a county by said county planning board a set forth and limited hereinafter in this</li> <li>The Planning Board and Township Cou</li> </ul>	ecording officer and r any development exempt from such s the planning board of this act . Dictate ounty planning board ounty planning board ount for the approva section. ncil are responsibl	ad approval of site plan. , except that subdivision ite plan review and app d whenever the board of ed by the Municipal La ard shall provide for th al of those subdivisions e for this code in comp	s by resolution o n or individual lo proval; provided of adjustment has nd Use Law. NJ ne review of all s affecting county liance with Chap	f the planning bo ot applications fo that the resolution jurisdiction over Statute 40:27-6.2 ubdivisions of lan road or drainag	ard as a r detached one on of the board a subdivision - the board of ad within the
Comment:       • See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8         • The Township Council and NJDEP are responsible for this ordinance in compliance with Chapter 211: Stormwater Control; T I. Stormwater Permit (annual).         • This ordinance complies with Municipal Ord. Chapter 211 (4/3/06) and annual NJDEP Tier 1 Stormwater Permit.         Post-Disaster Recovery       No       -       No       -         Comment:         Real Estate Disclosure       Yes       State, Division of Consumer Affairs       Yes       No       -         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 improvements, fees for services and amenities, the type of title and ownership interest being offered, its proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.         Growth Management       Yes       State & Local       Yes – if municipality has a       No       -         • These ordinances have been updated from 2002 to present.       • These ordinances in compliance with 2002 Township Smart Growth Ping, 2004 Township Master Plan; 2006 zoning ordinances based on 2004 Township Master Plan; Master Plan Highlands Element 10/12/14; full Highlands Conformance now underway.       • State Mandated on a municipal level. See Zoning Ordinance ; Also - Plan Endorsement Process via the State Development & Redevelopment Plan provides for the					Ves	_
Real Estate Disclosure       Yes       State, Division of Consumer Affairs       Yes       No       -         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 improvements, fees for services and amenities, the type of title and ownership interest being offered, its proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.         Growth Management       Yes       State & Local       Yes - if municipality has a       No       -         Growth Management       Yes       State & Local       Planning Board       No       -         Comment:       •       These ordinances have been updated from 2002 to present.       •       No       -         •       The Planning Board, Township Council, and Highlands Council are responsible for these ordinances in compliance with 2002 Township Smart Growth Plan; 2004 Township Master Plan; 2006 zoning ordinances based on 2004 Township Master Plan; Master Plan Highlands Element 10/12/14; full Highlands Cofformance now underway.       •       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 implementati of state environmental regulations makes the Plan Endorsement process a growth management strategy.         Site Plan Review <t< th=""><th>• The Township Council and NJDEP are 1 Stormwater Permit (annual).</th><th>responsible for this 1 Ord. Chapter 211</th><th>-</th><th>JDEP Tier 1 Sto</th><th></th><th>er Control; Tier</th></t<>	• The Township Council and NJDEP are 1 Stormwater Permit (annual).	responsible for this 1 Ord. Chapter 211	-	JDEP Tier 1 Sto		er Control; Tier
Yes       Consumer Affairs       Yes       No       -         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 improvements, fees for services and amenities, the type of title and ownership interest being offered, its proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.         Growth Management       Yes       State & Local       Yes - if municipality has a       No       -         Growth Management       Yes       State & Local       Planning Board       No       -         Comment:       •       These ordinances have been updated from 2002 to present.       •       No       -         •       These ordinances have been updated from 2002 to present.       •       The Planning Board, Township Council, and Highlands Council are responsible for these ordinances in compliance with 2002 Township Smart Growth Plan; 2004 Township Master Plan; 2006 zoning ordinances based on 2004 Township Master Plan; Master Plan Highlands Element 10/12/14; full Highlands Conformance now underway.         •       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 implementati of state environmental regulations makes the Plan Endorsement process a growth management strate	Comment:					
<ul> <li>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 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.</li> <li>Growth Management Yes State &amp; Local Yes - if municipality has a No - Planning Board No - Planning Board</li> <li>These ordinances have been updated from 2002 to present.</li> <li>The Planning Board, Township Council, and Highlands Council are responsible for these ordinances in compliance with 2002 Township Smart Growth Plan; 2004 Township Master Plan; 2006 zoning ordinances based on 2004 Township Master Plan; Master Plan Highlands Element 10/12/14; full Highlands Conformance now underway.</li> <li>State Mandated on a municipal level. See Zoning Ordinance ; Also - Plan Endorsement Process via the State Development &amp; Redevelopment Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementati of state environmental regulations makes the Plan Endorsement process a growth management strategy.</li> <li>Site Plan Review Yes Local Yes _ if municipality has a Yes</li> </ul>	Real Estate Disclosure	Yes		Yes	No	-
Growth Management       Yes       State & Local       municipality has a Planning Board       No       -         Comment:       •       These ordinances have been updated from 2002 to present.       •       Board       No       -         •       These ordinances have been updated from 2002 to present.       •       The Planning Board, Township Council, and Highlands Council are responsible for these ordinances in compliance with 2002 Township Smart Growth Plan; 2004 Township Master Plan; 2006 zoning ordinances based on 2004 Township Master Plan; Master Plan Highlands Element 10/12/14; full Highlands Conformance now underway.       •       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.       Yes - if         Site Plan Review       Yes       Local       Yes       -	<ul> <li>N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real improvements, fees for services and amore</li> </ul>	Estate Commission Enities, the type of the state of the s	on. The POS provides in title and ownership inte	formation such prest being offere he subdivision.	as estimated com d, its proximity to	pletion dates f
<ul> <li>These ordinances have been updated from 2002 to present.</li> <li>The Planning Board, Township Council, and Highlands Council are responsible for these ordinances in compliance with 2002 Township Smart Growth Plan; 2004 Township Master Plan; 2006 zoning ordinances based on 2004 Township Master Plan; Master Plan Highlands Element 10/12/14; full Highlands Conformance now underway.</li> <li>State Mandated on a municipal level. See Zoning Ordinance ; Also - Plan Endorsement Process via the State Development &amp; 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.</li> <li>Site Plan Review</li> <li>Yes</li> <li>Local</li> </ul>	Growth Management	Yes	State & Local	municipality has a Planning	No	-
	<ul> <li>These ordinances have been updated fro</li> <li>The Planning Board, Township Council Township Smart Growth Plan; 2004 Tor Master Plan Highlands Element 10/12/1</li> <li>State Mandated on a municipal level. Se Redevelopment Plan provides for the de</li> </ul>	, and Highlands C wnship Master Pla 14; full Highlands ee Zoning Ordinand lineation of Growt es the Plan Endorse	ouncil are responsible j n; 2006 zoning ordinan Conformance now unde ce ; Also - Plan Endors h Areas and Environs; ement process a growth	aces based on 20 erway. ement Process v. Use of the endor management str Yes – if municipality has a Planning	04 Township Ma: ia the State Deve sed plans in the i rategy.	ster Plan; lopment &
Board	Comment:			Board		



		Authority that		been integra	s of the HMP ted into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>review of all subdivisions of land within affecting county road or drainage facili planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publ given to the county planning board at lee a copy of the official notice of the public</li> <li>The Planning Board and Township Counand Site Plan.</li> <li>These requirements comply with Munici</li> </ul>	ties as set forth an ile of the planning v planning board a notify the county r djoining county ra ic lands shown on ast 10 days prior to hearing together ncil are responsibl	d limited hereinafter in and zoning ordinances copy of the planning a blanning board of the ir boads or other county the the county master plan o the public hearing the with a copy of the propo- e for these requirement	this section. 40 of all municipal and zoning ordina throduction of a dos, or lands lyin or official count reon by persona ssed ordinance. s in compliance	27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 feet ty map. Such now al delivery or by c	that county e, each cipality in effect nendment of of a municipal tice shall be vertified mail of
Environmental Protection	Yes	State & Local	No	Yes	_
<ul> <li>Chapter 19 Environmental C</li> <li>Chapter 167 Littering and D</li> <li>Chapter 169 Hazardous Mat</li> <li>Chapter 208 Soil Removal</li> </ul> Flood Damage Prevention	umping	Federal, State & Local	Yes	Yes	2021-Byram- 008
federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. This ordinance follows Township Ord. C It is the purpose of this chapter to prome due to flood conditions in specific areas o A. Protect human life and he o B. Minimize expenditure of p o C. Minimize the need for ress the general public; o D. Minimize prolonged busin o E. Minimize damage to publi streets, and bridges located i o F. Help maintain a stable tax as to minimize future flood b o G. Ensure that potential buye o H. Ensure that those who occ	lity must be review we. Regulations for Chapt. 135: Flood L ote the public healt by provisions desi alth; ublic money for co cue and relief effor tess interruptions; c facilities and utit n areas of special base by providing light areas; ers are notified tha cupy the areas of sp	ed for compliance with the Flood Control Haz Damage Prevention. th, safety, and general v gned to: stly flood-control proje ts associated with flood lities such as water and flood hazard; for the second use and t property is in an area pecial flood hazard assu	these regulation ands Act were a velfare and to m cts; ling and general gas mains, elect development of of special flood	is. In addition, p dopted in 2007 a inimize public an ly undertaken at tric, telephone an fareas of special hazard; and	articipation in nd amended d private losses the expense of d sewer lines, flood hazard so
*	0 0	1	N.	V	
Wellhead Protection Comment:	Yes	Local	No	Yes	-
The Zoning Ordinance includes an artic	le on Highlands A	rea Land Use which dis	cusses wellhead	protection areas	
Emergency Management	Yes	State/Local	No	Yes	-
Comment: • Chapter 32 Emergency Management					
Climate Change	No	-	No	-	-
Comment:					
	), T	-	No	_	
Disaster Recovery Ordinance	No	-	110	-	-
Disaster Recovery Ordinance Comment:	No	-	110		-
•	No	-	No	-	-





		Authority that	Is this State Mandated?		ts of the HMP ated into your nances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)		If yes- how? Describe in comments.	If no - add Mitigatior Action #, i applicable	
Municipal Separate Storm Sewer System (MS4)	Yes	Local	No	Yes		
Comment: • The Township Council is responsible for Municipal Ord. Chapter 203 (12/19/05)		compliance with Chapt	ter 203: Separat	e Storm Sewer Sy	stem and	
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	No	Yes		
Comment: • The Planning Board and Township Cou. Disturbance; also Master Plan Highlan. were amended on November 15, 2004.						
Planning Documents						
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-	
the general location and extent of forest water supply, sanitary and drainage fac important to the development of the cou- municipalities within the county in any r advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan	cilities, or the proto nty. The county plo natters whatsoever ers with respect to Land Use Law (M	ection of urban develop anning board shall enco which may concern the the formulation of devel (LUL) L. 1975, s. 2, eff	ment, and such purage the co-op e integrity of the lopment program Aug 1, 1976 40:	other features as eration of the loc county master pl ns and budgets fo 55D-28 provides	may be al lan and to br capital the required	
water supply, sanitary and drainage fac important to the development of the cou municipalities within the county in any r advise the board of chosen commissione	cilites, or the proto nty. The county pla natters whatsoever ers with respect to b Land Use Law (M and requires that consistent with the 2004.It was re-ex	ection of urban develop unning board shall enco which may concern the the formulation of devel (LUL) L. 1975, s. 2, eff each municipality prepo Master Plan or will no amined in March of 20.	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr 12.	other features as eration of the loc county master pi ns and budgets fa 55D-28 provides n and update it er om a presumption	may be al lan and to for capital the required very 6 years. n of validity.	
<ul> <li>water supply, sanitary and drainage facting in the important to the development of the count municipalities within the county in any nadvise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be a This plan was adopted on December 16,</li> <li>The Planning Board is responsible for the Report 2012.</li> </ul>	cilites, or the proto nty. The county pla natters whatsoever ers with respect to b Land Use Law (M and requires that consistent with the 2004.It was re-ex	ection of urban develop unning board shall enco which may concern the the formulation of devel (LUL) L. 1975, s. 2, eff each municipality prepo Master Plan or will no amined in March of 20.	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr 12.	other features as eration of the loc county master pi ns and budgets fa 55D-28 provides n and update it er om a presumption	may be al lan and to for capital the required very 6 years. n of validity.	
<ul> <li>water supply, sanitary and drainage facting inportant to the development of the count municipalities within the county in any madvise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plann Further, all zoning ordinances must be of This plan was adopted on December 16,</li> <li>The Planning Board is responsible for the Report 2012.</li> </ul>	cilities, or the proto nty. The county pla natters whatsoever ers with respect to o Land Use Law (M and requires that consistent with the 2004.It was re-ex his plan in complia	ection of urban develop unning board shall enco which may concern the the formulation of deven (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no amined in March of 20, unce with Byram Twp. M Local	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr 12. Master Plan 200 No	other features as eration of the loc county master pins and budgets fo 55D-28 provides n and update it e com a presumption 4; Master Plan Ro Yes	may be al lan and to for capital the required very 6 years. n of validity.	
<ul> <li>water supply, sanitary and drainage facting important to the development of the count important to the development of the count in any radvise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be of This plan was adopted on December 16,</li> <li>The Planning Board is responsible for the Report 2012.</li> <li>Capital Improvement Plan</li> <li>Comment: The Township Council is responsible for</li> <li>Disaster Debris Management Plan</li> </ul>	cilities, or the proto nty. The county pla natters whatsoever ers with respect to o Land Use Law (M and requires that consistent with the 2004.It was re-ex his plan in complia	ection of urban develop unning board shall enco which may concern the the formulation of deven (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no amined in March of 20, unce with Byram Twp. M Local	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr 12. Master Plan 200 No	other features as eration of the loc county master pins and budgets fo 55D-28 provides n and update it e com a presumption 4; Master Plan Ro Yes	may be al an and to br capital the required very 6 years. n of validity. e-examination	
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<ul> <li>water supply, sanitary and drainage facting important to the development of the count municipalities within the county in any nadvise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be of This plan was adopted on December 16,</li> <li>The Planning Board is responsible for the Report 2012.</li> </ul> Capital Improvement Plan Comment: The Township Council is responsible for the second processing the second pro	cilities, or the proto- nty. The county pla- natters whatsoever rs with respect to o l and Use Law (M and requires that consistent with the . 2004.It was re-ex- his plan in complia- Yes r this plan in complia- No No Yes A.C. 7:8) rules we d municipal storm ew (proposed) dev uantity controls, and stormwater manage of stormwater runog in or to discharge partment under the	ection of urban develop unning board shall enco which may concern the formulation of deven (LUL) L. 1975, s. 2, eff amined in March of 20. unce with Byram Twp. M Local Local liance with 2015 Munic - - Local ere published in the Feb water management plan elopment. The design a nd runoff quality control ement techniques includ es, preserving natural a f quantity control, storr runoff from the major a e Flood Hazard Area Co	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master plan t be benefitted fr 12. Master Plan 2000 No cipal Budget—3: No Ves No Yes No Yes pruary 2, 2004 N is and establish in nd performance ils. The rules em, ling minimizing frainage feature nwater runoff qu levelopment into ontrol Act Rules	other features as eration of the loc county master pi ns and budgets ft 55D-28 provides n and update it e om a presumption 4; Master Plan Re Yes yr. Plan. - - Yes U Register. These the stormwater m standards for ner phasize, as a prin disturbance, minus standards for ner phasize, as a prin disturbance, minus standards for re phasize, as a prin disturbance, minus a 300-foot ripar , N.J.A.C. 7:13.	may be al an and to br capital the required very 6 years. n of validity. e-examination 	
water supply, sanitary and drainage fac important to the development of the cou- municipalities within the county in any n advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be o This plan was adopted on December 16, The Planning Board is responsible for the Report 2012. Capital Improvement Plan Comment: The Township Council is responsible for Disaster Debris Management Plan Comment: Floodplain or Watershed Plan Comment: Stormwater Management Plan Comment: • The Stormwater Management rules (N.J the required components of regional and design and performance standards for n include groundwater recharge, runoff qu consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge, of major development to be located with without prior authorization from the Dej The Township Council is responsible for	cilities, or the proto- nty. The county pla- natters whatsoever rs with respect to o l and Use Law (M and requires that consistent with the 2004.It was re-ex- his plan in complia- Yes r this plan in complia- No No Yes LA.C. 7:8) rules we d municipal stormw- ew (proposed) dev- uantity controls, and stormwater manage of stormwater runog in or to discharge partment under the r this plan in comp	ection of urban develop unning board shall enco which may concern the the formulation of deven (LUL) L. 1975, s. 2, eff amined in March of 20. unce with Byram Twp. M Local liance with 2015 Munic - Local ere published in the Fel water management plan elopment. The design a drunoff quality contro ement techniques incluad f quantity control, storn f quantity control, storn	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master plan t be benefitted fr 12. Master Plan 2000 No cipal Budget—3: No Ves No Yes No Yes pruary 2, 2004 N is and establish in nd performance ils. The rules em, ling minimizing frainage feature nwater runoff qu levelopment into ontrol Act Rules	other features as eration of the loc county master pi ns and budgets ft 55D-28 provides n and update it e om a presumption 4; Master Plan Re Yes yr. Plan. - - Yes U Register. These the stormwater m standards for ner phasize, as a prin disturbance, minus standards for ner phasize, as a prin disturbance, minus standards for re phasize, as a prin disturbance, minus a 300-foot ripar , N.J.A.C. 7:13.	may be al an and to br capital the required very 6 years. n of validity. e-examination - 2021-Byran 007 - 2021-Byran 007 - e rules set forth anagement w developmen. nary imizing ilso set forth d the prohibitio ian zone	

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7:14A) were published in the February 2, 2004, NJ Register. These NJPDES rules are intended to address and reduce pollutants





		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, wil management plan and implementing ord basin cleaning); implementing solids an education component.	tter Act. These NJ. sewer systems, kn such as universitt am establishes the ese sources. The S dlife feeding, prop linance(s); requiri	PDES rules govern the own as MS4s. Under th ies and hospitals, and S e Statewide Basic Require tatewide Basic Require oer waste disposal, etc.) ng certain maintenance	issuance of perm is program, pern tate, interstate a rements that mu, ments include mu ; the developmen activities (such	nits to entities tha nits must be secur nd federal agenci st be implemented easures such as: t nt of a municipal as street sweepin	t own or red by es that operate t to reduce the adoption of stormwater g and catch
Urban Water Management Plan	No	-	No	-	-
Comment:					
Habitat Conservation Plan	No	-	No	-	-
Comment:					
Economic Development Plan	No	-	No	-	-
Comment:		I			
Shoreline Management Plan <i>Comment:</i>	No	-	Yes – if located in a coastal zone	-	-
structures, and site preparation. This la Community Wildfire Protection Plan Comment:	Yes	Local	No	Yes	
Community Forest Management Plan	Yes	Local	No	Yes	-
Comment:		1			
Transportation Plan	Yes	Local	No	Yes	
Comment: • The Planning Board is responsible for the second seco	his plan in complia	ance with Master Plan (	Circulation Elem	nent 2004.	
Agriculture Plan	Yes	County	No	-	-
Comment:		•			
Climate Action Plan	No	-	No	-	-
Comment:			•		
Tourism Plan	Yes	Local	No	Yes	-
Comment:					
Eco Tourism Plan is incorporated as par Business Development Plan	t of the Open Space Yes	Local	No	No	_
Comment:	105	Local	110	110	_
Other: Open Space Plan	Yes	Local	No	Yes	
Comment: • This plan was adopted in October of 200 • The Township Open Space Committee is OS and Recreation Plan Update (2010).	)0 and was update	d in November of 2010.			- Plan (2000) and
Other: Stream Corridor Management Plan	Yes	Local	No	Yes	-
Comment: • This plan was adopted in June of 1997 a	and updated on De	cember 18, 2000.			



		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
The Township Environmental Commissi Stream Corridor Study (1997 and 2000)		or this plan in complian	ice with Lubbers	s Run Greenway I	Project: A
Watershed Management or Protection Plan	Yes	State & Local	Yes	Yes	-
Comment: • The Planning Board and Council are re Conformance Process (underway).	esponsible for this p	olan in compliance with	Lakefront Deve	lopment Plan 200	)3; Highlands
Response/Recovery Planning					
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	
Ordinance Chapter 32: Emergency Man This plan was adopted on October 2, 19 The plan was then updated in 2019 Threat & Hazard Identification & Risk	0	1	ccording to Mur	nicipal Ordinance Yes	e Chapter 32.
Assessment (THIRA)					
Comment: Post-Disaster Recovery Plan	No	-	No	_	-
Comment:					
Continuity of Operations Plan	Yes	Local	No	Yes	-
Comment: • Township Policies are in place for conti	nuity of operations	5			
Public Health Plan	Yes	County	Yes	Yes	-
Comment: • The Public Health plan is administered	by Sussex County	Health Department.			
Other Plans: Smart Growth Plan 2002	Yes	Local	No	Yes	-
Comment: • The Planning Board is responsible for the second seco	hese plans in comp	liance with Byram Tow	nship Smart Gr	owth Plan (2002).	

## Table 9.5-4. Development and Permitting Capability

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

#### **ADMINISTRATIVE AND TECHNICAL CAPABILITY**

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

#### Table 9.5-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		





Staff/Personnel Resource	Available?	Department/Agency/Position
Planning Board	Yes	Municipal Ordinance Chapter 45: 1/19/77, 11/19/90; Amendment 5/4/95
Mitigation Planning Committee	Yes	Hazard Mitigation Planning Team: Township Council and Municipal Department Heads
Environmental Board / Commission	Yes	Municipal Ordinance Chapter 19 (10/2/74)
Open Space Board / Committee	Yes	Municipal Ordinance Chapter 42 (1/20/2000)
Economic Development Commission / Committee	Yes	Municipal Ordinance Chapter 16 (10/21/85)
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Nixle, various Social media platforms
Maintenance program to reduce risk	Yes	Superintendent of Department of Public Works
Mutual aid agreements	Yes	Lakeland Emergency Squad & Byram Township Fire Department
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Municipal and Planning Board Engineer; Consulting Land Use Planner
Engineers or professionals trained in building or infrastructure construction practices	Yes	Construction Official and Sub-Code Officials
Planners or engineers with an understanding of natural hazards	Yes	Construction Official and Sub-Code Officials
Staff with training in benefit/cost analysis	Yes	Township Manager; Township Engineer, Township Risk Manager
Staff with training in green infrastructure	Yes	Construction Official and Sub-Code Officials
Staff with education/knowledge/training in low impact development	Yes	Construction Official
Surveyor	Yes	Within Office of Township Engineer.
Stormwater engineer	Yes	Cory Stoner – Harold E. Pellow & associates
Personnel skilled or trained in GIS applications	Yes	Municipal/Planning Board Engineer
Local or state water quality professional	Yes	Sussex County Water Quality Board
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	Emergency Management Coordinator
Watershed planner	No	-
Environmental specialist	Yes	Environmental Commission – Forester is Gracie & Harrigan Consulting Foresters
Grant writers	Yes	Municipal Staff
Resilience Officer	No	-
Other: NFIP Floodplain Administrator	Yes	Construction Official
Other: Professionals trained in conducting damage assessments	Yes	Construction Official, Municipal Engineer

## FISCAL CAPABILITY

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

## Table 9.5-6. Fiscal Capabilities

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



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

## EDUCATION AND OUTREACH CAPABILITY

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

#### Table 9.5-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes, Township Manager
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	No
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.	No

#### **COMMUNITY CLASSIFICATIONS**

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

#### Table 9.5-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	3 – 1 and 2 family residential properties 3 – commercial and industrial properties	2009
Public Protection (Fire ISO Protection Class)	Yes	Class 06/6X	June 2014
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	Yes	Not certified	Joined program 5/4/2009

#### **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.

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

## Table 9.5-9. Adaptive Capacity

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 and is not currently supportive of integrating climate change in policies or actions? No

#### NATIONAL FLOOD INSURANCE PROGRAM

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

#### Table 9.5-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Construction Official/Building Department
Who is your floodplain administrator? (name, department/position)	Peter Karcher, Construction Official
Are any certified floodplain managers on staff in your jurisdiction?	Construction Official/Building Department
What is the date that your flood damage prevention ordinance was last amended?	August 2011
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets minimum requirements.
When was the most recent Community Assistance Visit or Community Assistance Contact?	January 12, 1994
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?	No





Criterion	Response
If so, state what they are.	
Do your flood hazard maps adequately address the flood risk within your jurisdiction? -If no, state why.	YES – FEMA maps
Does your floodplain management staff need any assistance or training to support its floodplain management program? - If so, what type of assistance/training is needed?	Other than the lack of a general education/outreach program regarding flood hazards and risk, the Township lacks funding and resources to conduct a broader floodplain management program. The Township would welcome any opportunities to improve training and support for the FPA and Township staff to identify and mitigate floodprone areas.
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 Township has considered joining CRS and would attend a CRS seminar if offered locally.
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	22 policies \$5,666,800 insurance in force \$20,214 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	14 claims \$129,878 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

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

## **OPPORTUNITIES FOR FUTURE INTEGRATION**

- Flood Damage Prevention Ordinance: The Township will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement. (2021-Byram-008)
- **Disaster Debris Management Plan**: The Township will develop a Disaster Debris Management Plan. (2021-Byram007)

# 9.5.5 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 Byram'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 9.5-11 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.





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 <sup>rd</sup> and 24th.	Although the County was impacted, the Township did not report major impacts.
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 subject to temporary closures and social distancing and masking mandates.
August 4, 2020	4574DR Tropical Storm Isaias	Yes	A Major tropical storm produced high, damaging winds and significant rainfall	The Township was subject to numerous downed trees and power lines. Equipment damage was also experienced.

 Table 9.5-11. Hazard Event History

Source: FEMA 2020, NOAA NCEI 2020

# 9.5.6 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 Byram 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 Byram 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 Byram has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

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

- Number of repetitive loss (RL) properties: 3
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

#### Source: FEMA 2019

#### **CRITICAL FACILITIES AND LIFELINES**

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





		Expo	osure		
Name	Туре	1% Event	0.2% Event		
Byram Twp Pump Station 5	Wastewater Pump	Х	Х		
Byram Twp Pump Station 6	Wastewater Pump	Х	Х		
Byram Twp Interm. School	Shelter	Х	Х		
Byram Lakes Elem. School	Shelter	Х	Х		
22-17 Lake Lackawanna Dam	Dam	Х	Х		
22-36 Panther Lake Dam	Dam	Х	Х		
22-50 Cub Lake Dam	Dam	Х	Х		
22-99 Forest Lake Dam	Dam	Х	Х		
22-159 Tomahawk Lake Dam	Dam	X	Х		
22-196 Johnson Lake Dam	Dam	Х	Х		
22-246 Kofferls Pond Dam	Dam	Х	Х		
24-100 Frenche's Pond Dam	Dam	Х	Х		
24-101 Reservoir Lake Dam	Dam	Х	Х		

Table 9.5-12. Cri	ritical Facilities and Life	lines Flood Exposure
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Source: Note: \*Identified lifeline

## IDENTIFIED ISSUES AND PROBLEM AREAS

The jurisdiction has identified the following vulnerabilities within their community:

- There is no ingress/egress to East Brookwood in the event of an issue that would block Brookwood Road at the intersection of Route 206.
- East Brookwood Estates experiences drainage issues.
- The Township has flood risk. Staff could benefit from additional training.
- Little Paint Way experiences slow drainage and flooding issues attributed to undersized culverts.
- The Township has 17 dams which may pose a risk to life and property.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has three repetitive loss properties but other properties may be impacted by flooding as well.
- The Township lacks a standalone Disaster Debris Management Plan.
- The Township Flood Damage Prevention Ordinance lacks the state mandated 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 Byram 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 Byram. The Township of Byram 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 Byram indicated the following hazard rankings.

Dam Failure	Disease Outbreak	Drought	Earthqu	ake	Flood	Geologic
High	High	Medium	Mediu	n	Low	
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter	Sever Weathe		Wildfire
High	High	Medium	High	High	High	Medium

## Table 9.5-13. Township of Byram Hazard Ranking

# 9.5.7 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 9.5-15 and Table 9.5-16 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 9.5-14. Status of Previous HMP Mitigation Actions

			Status (In Progress, No	Include in the 2021 HMP Update?			
20:	16 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
Byram- 1 (new)	Engineering study of East Brookwood Estates drainage issues.	Township Engineer, DPW, Planning Board	In Progress	x	2021-Byram- 002		
Byram- 2 (new)	Have designated NFIP Floodplain Administrator (FPA), and the Town's Emergency Management Council, become a Certified Floodplain Manager (CFM) through the Association of State Floodplain Managers (ASFPM) and New Jersey Association for Floodplain Management (NJAFM), and pursue relevant continuing education training such as FEMA Benefit-Cost Analysis (BCA) and Substantial Damage Estimation (SDE).	NFIP FPA, Emergency Management Coordinator, Emergency Management Council	In Progress	X	2021-Byram- 003		
Byram- 3 (new)	Ensure continuity of operations at critical facilities:	Township, Engineer, DPW	Completed				





			Status (In Progress, No	Include in the 2021 HMP Update?			
201	l6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
	Purchase and install a generator for critical facility (radio communications for police/fire/emergency departments.						
Byram- 4 (old #10)	Upgrade and improve culverts on Little Paint Way.	DPW Supervisor	In Progress	х	2021-Byram- 004		
Byram- 5 (old #13)	Implement Fire Wise Program in the Township.	Township Engineer	Ongoing Capability				
Byram- 6 (old #14)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	Township	Ongoing Capability				
Byram- 7 (new)	Educate flood prone property owners; pursue acquisition/elevation of one repetitive loss property	Township	Ongoing Capability				
Byram- 8 (new)	Review status of all 17 dams in Township and identify if inundation studies for these dams needs to be conducted.	Township of Byram; NJDEP Dam Safety	In Progress	х	2021-Byram- 005		
Byram- 9 (revised old #1)	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or acquisition/relocation to protect structures from future damage, with repetitive loss and severe repetitive loss properties as a priority when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option. Phase 2: Work with the property owners to implement selected action based on available funding and local match availability.	Engineering via NFIP FPA with NJOEM, FEMA support	In Progress	Х	2021-Byram- 006		

In addition to the above progress, the Township of Byram 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 Byram 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 Byram 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 9.5-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Byram 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 9.5-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.5-15. 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- Byram- 001	East Brookwood Alternative Emergency Ingress/Egress	<ul> <li>Problem: There is no ingress/egress to East Brookwood in the event of an issue that would block Brookwood Road at the intersection of Route 206.</li> <li>Solution: The Township will develop an alternate ingress/egress to East Brookwood in the event of an issue that would block Brookwood Road at the intersection of Route 206.</li> </ul>	Existing	All Hazards	1, 3	Engineer, Public Works, OEM	HMGP, Capital Improveme nts	Emerg ency access to commu nity maintai ned	High	Wi thi 5 ye ars	Hig h	SIP	ES
2021- Byram- 002	East Brookwood Estates Drainage	Problem: East Brookwood Estates         experiences drainage issues.         Solution: The Township will conduct an         engineering study of East Brookwood         Estates drainage issues and pursue         identified cost-effective mitigation         actions identified by the study.	Existing	Flood, Severe Weather	2, 4	Township Engineer, DPW, Planning Board	HMGP, BRIC, municipal budget	Reduce d flood risk	Medi um	2 ye ars	Hig h	LPR, SIP	SP, PP
2021- Byram- 003	Floodplain Management Capabilities	<ul> <li>Problem: The Township has flood risk. Staff could benefit from additional training.</li> <li>Solution: Have designated NFIP Floodplain Administrator (FPA), and the Town's Emergency Management Council, become a Certified Floodplain Manager (CFM) through the Association of State Floodplain Managers (ASFPM) and New Jersey Association for Floodplain Management (NJAFM), and pursue relevant continuing education training such as FEMA Benefit-Cost Analysis (BCA) and Substantial Damage Estimation (SDE).</li> </ul>	N/A	Flood	5	NFIP FPA, Emergency Manageme nt Coordinator , Emergency Manageme nt Council	Township budget	Increas ed munici pal capabil ities	Low	2 ye ars	Hig h	LPR, EAP	PR, PI
2021- Byram- 004	Upgrade and Improve Culverts on Little Paint Way	<ul> <li>Problem: Little Paint Way experiences slow drainage and flooding issues, attributed to undersized culverts.</li> <li>Solution: The Engineer will survey the existing culverts and determine what culvert improvements are necessary. The DPW Supervisor will then carry out the identified culvert improvements.</li> </ul>	Existing	Flood, Severe Weather	2	Engineer, DPW Supervisor	HMGP, BRIC, Township budget	Reduct ion in culvert damag es and flood risk. Access maintai ned.	\$125, 000	2 ye ars	Hig h	SIP	SP





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s ) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2021- Byram- 005	Dam Inundation	Problem: The Township has 17 dams         which may pose a risk to life and         property.         Solution: Review status of all 17 dams         in Township and identify if inundation         studies for these dams needs to be         conducted.	Existing	Dam Failure	7	Township of Byram; NJDEP Dam Safety	NJDEP Dam Safety	Protect ion from dam failure	High	Wi thi 5 ye ars	Me diu m	LPR, EAP	PR, NR
2021- Byram- 006	Repetitive Loss Mitigation	<ul> <li>Problem: Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 3 repetitive loss properties but other properties may be impacted by flooding as well.</li> <li>Solution: Conduct outreach to 10 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</li> </ul>	Existing	Flood, Severe Weather	2	NFIP Floodplain Administrat or, supported by homeowner s	FEMA HMGP and FMA, local cost share by residents	Elimin ates flood damag e to homes and residen ts, creates open space for the munici pality increas ing flood storage	\$1 Milli on	3 ye ars	Hig h	SIP	РР
2021- Byram- 007	Disaster Debris Management Plan	Problem: The Township lacks a standalone Disaster Debris Management Plan.Solution: The Township will develop and adopt a standalone Disaster Debris Management Plan.	Existing	All Hazards	5	OEM, Public Works	Township budget	Increas ed disaste r respon se capabil ities	Low	2 ye ars	Hig h	LPR	ES
2021- Byram- 008	Flood Damage Prevention Ordinance Update	<b>Problem</b> : The Township Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement. <b>Solution:</b> The Township will update the Ordinance to include freeboard.	New	Flood	2	FPA, Administrat ion	Township budget	Meet state standar ds	Staff time	6 m on ths	Hig h	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:

FMAFlood Mitigation Assistance Grant ProgramHMGPHazard Mitigation Grant ProgramBRICBuilding Resilient Infrastructure and CommunitiesProgram

#### Timeline:

The time required for completion of the project upon implementation

#### <u>Cost:</u>

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.



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- Byram-001	East Brookwood Alternative Emergency Ingress/Egress	1	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2021- Byram-002	East Brookwood Estates Drainage	0	1	0	1	1	1	0	1	1	1	1	0	1	1	10	High
2021- Byram-003	Floodplain Management Capabilities	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High
2021- Byram-004	Upgrade and Improve Culverts on Little Paint Way	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Byram-005	Dam Inundation	1	1	1	1	1	1	1	1	1	1	0	0	1	1	12	High
2021- Byram-006	Repetitive Loss Mitigation	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2021- Byram-007	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021- Byram-008	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.





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

## Table 9.5-17. Analysis of Mitigation Actions by Hazard and Category

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

high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



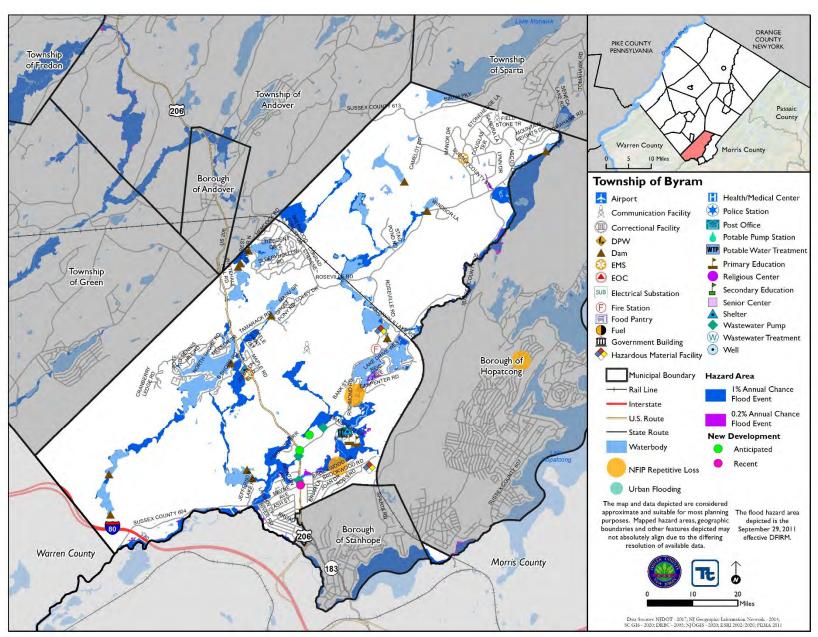


Figure 9.5-1. Township of Byram Hazard Area Extent and Location Map 1





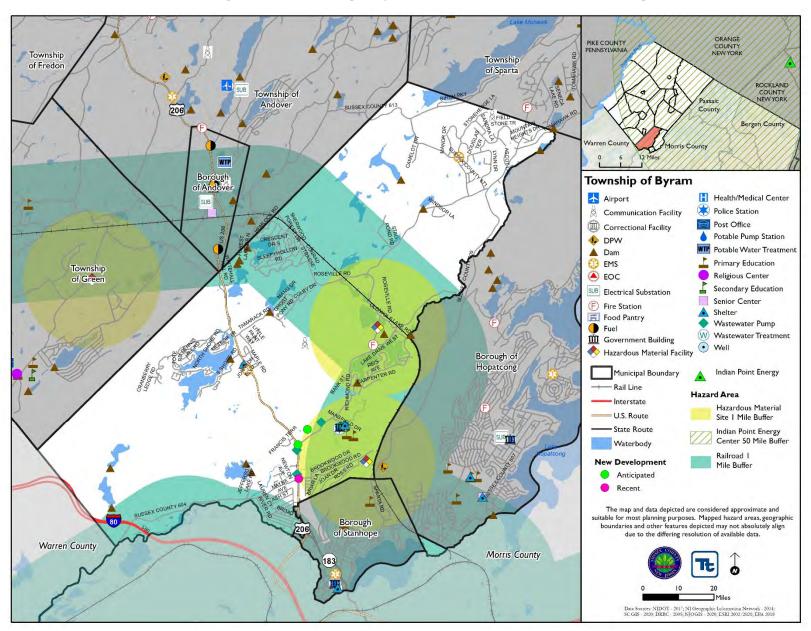


Figure 9.5-2. Township of Byram Hazard Area Extent and Location Map 2





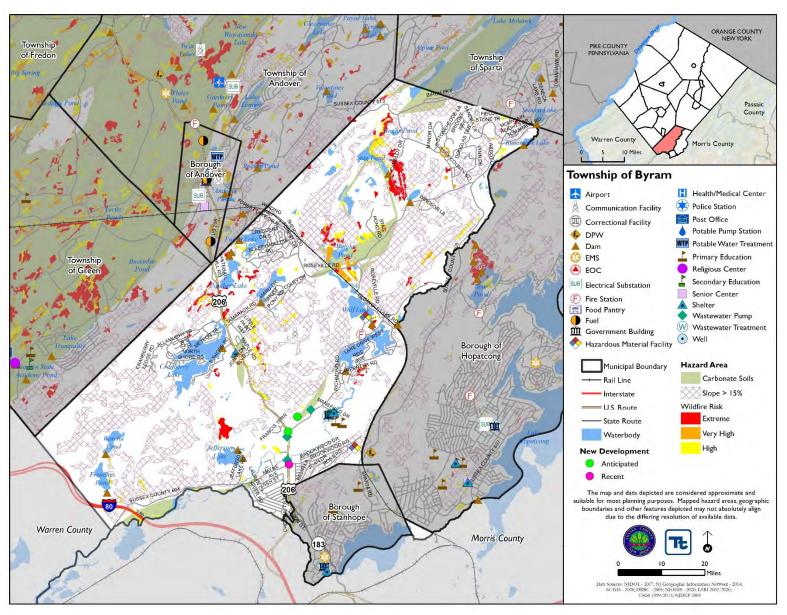


Figure 9.5-3 Township of Byram Hazard Area Extent and Location Map 3



Action Worksheet								
Project Name:	East Brookwood A							
Project Number:	2021-Byram-001	2021-Byram-001						
Risk / Vulnerability								
Hazard(s) of Concern:	All Hazards							
Description of the Problem:	There is no ingress/egress to East Brookwood in the event of an issue that would block Brookwood Road at the intersection of Route 206.							
Action or Project Intended								
Description of the Solution:	The Township will develop an alternate ingress/egress to East Brookwood in the event of an issue that would block Brookwood Road at the intersection of Route 206.							
Is this project related to a	Critical Facility?	Yes		No 🛛				
Level of Protection:	N/A			nated Benefits ses avoided):	Emergency access to community maintained			
Useful Life:	20 years		Goal	s Met:	1			
Estimated Cost:	High		Mitigation Action Type:		Structure and Infrastructure Project			
Plan for Implementation			r					
Prioritization:	High			red Timeframe for ementation:	Within 5 years			
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		HMGP, Capital Improvements			
Responsible Organization:	Engineer, Public W OEM	vorks,	Local Planning Mechanisms to be Used in Implementation if any:		Hazard Mitigation, Capital Improvement			
Three Alternatives Conside	ered (including No	Action)						
	Action			Estimated Cost	Evaluation			
	No Action			\$0	Problem continues.			
Alternatives:	Buyout neighbo			High	Costly, social negative impacts			
	Widen Brookwoo	od Road	Medium		Unlikely to solve problem during an event			
Progress Report (for plan	maintenance)							
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								





Action Worksheet							
Project Name:	East Brookwood Alternativ	re Emergency Ingress/Egress					
Project Number:	2021-Byram-001						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Emergency access maintained					
Property Protection	1						
Cost-Effectiveness	1						
Technical	1						
Political	1						
Legal	1	The Township has the legal authority to complete the project.					
Fiscal	0	The project requires grant funding support.					
Environmental	1						
Social	1						
Administrative	1						
Multi-Hazard	1	All Hazards					
Timeline	1						
Agency Champion	1	Engineer, Public Works, OEM					
Other Community Objectives	1						
Total	12						
Priority (High/Med/Low)	High						



Action Worksheet							
Project Name:	East Brookwood Esta	ates Drai	inage	-			
Project Number:	2021-Byram-002						
	,	sk / Vul	nerabilit	V			
Hazard(s) of Concern:	Flood, Severe Weath	er					
Description of the Problem:	East Brookwood Esta	East Brookwood Estates experiences drainage issues.					
	Action or Project	ct Intend	ded for Iı	nplementation			
<b>Description of the</b> <b>Solution:</b> The Township will conduct an engineering study of East Brookwood Estates drainage issues and pursue identified cost-effective mitigation actions identified by the study.							
Is this project related to a ( Lifeline?	Critical Facility or     Yes     No						
Level of Protection:	TBD by engineering	study		ted Benefits avoided):	Reduction in flood risk		
Useful Life:	TBD by engineering	study	Goals M	let:	2, 4		
Estimated Cost:	Medium		Mitigation Action Type:		Local Plans and Regulations, Structure and Infrastructure Projects		
	Plan	for Imp	lementa				
Prioritization:	High			l Timeframe for nentation:	Within 5 years		
Estimated Time Required for Project Implementation:	5 years		Potential Funding Sources:		HMGP, BRIC, municipal budget		
Responsible Organization:	Township Engineer, Planning Board	DPW,	Local Planning Mechanisms to be Used in Implementation if any:		Hazard mitigation planning, Stormwater management planning		
	Three Alternatives	Consid					
	Action		E	stimated Cost	Evaluation		
•1	No Action			\$0	Current problem continues		
Alternatives:	Elevate roadwa	·		\$500,000	Costly and may not solve problem		
	Relocate roadwa	2		N/A	Not possible		
	Progress Re	port (fo	r plan ma	aintenance)			
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							

\_\_\_\_\_







Action Worksheet							
Project Name:	East Brookwood Estates I	Drainage					
Project Number:	2021-Byram-002						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	0						
Property Protection	1	Reduction in flooding risk					
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	Project would reduce flooding impacts.					
Administrative	1						
Multi-Hazard	1	Flood, Severe Weather					
Timeline	0						
Agency Champion	1	Township Engineer, DPW, Planning Board					
Other Community Objectives	1						
Total	10						
Priority (High/Med/Low)	High						





	А	ction W	orkshee	t		
Project Name:	Upgrade and Improve					
Project Number:	2021-Byram-004			,		
Troject Number:	3	-1- / 171				
	Flood, Severe Weathe		nerabili	ty		
Hazard(s) of Concern:	Flood, Severe weathe	1				
Description of the Problem:	home neighborhood. T Way, which is the sole room for larger pipes.	There is i e access	nsufficier to this nei	nt capacity in drainage ghborhood. The road n	s which blocks access to a 26- culverts under Little Paint nust be elevated to provide	
	Action or Project					
Description of the Solution:	The Township will ele	evate the	roadway	and install larger drain	age culverts.	
Is this project related to a Critical Facility? Yes 🗌 No 🖂						
Level of Protection:	At least a 5-year event be determined once pr complete	t; will roject is		ted Benefits avoided):	Reduction in culvert damages and flood risk. Access maintained.	
Useful Life:	30 years		Goals N	Aet:	1	
Estimated Cost:	\$125,000	\$125,000		tion Action Type:	Structure and Infrastructure Project	
	Plan	for Imp	lementa	tion		
Prioritization:	High			d Timeframe for nentation:	2 years	
Estimated Time Required for Project Implementation:	1 year			ial Funding	HMGP, BRIC, Township budget	
Responsible Organization:	Engineer, DPW Super	visor	Local Planning Mechanisms to be Used in Implementation if any:		Hazard Mitigation	
	Three Alternatives	: Consid				
	Action		E	stimated Cost	Evaluation	
Alternatives	No Action			\$0	Current problem continues	
Alternatives:	Remove road Relocate road to and	athan		\$20,000	Roadway cannot be removed Roadway will still need to	
	location \$50,000				cross stream, costly	
	Progress Rej	port (fo	r plan m	aintenance)	eross stream, costry	
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Action Worksheet							
Project Name:	Upgrade and Improve Cul	verts on Little Paint Way					
Project Number:	2021-Byram-004						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Project will maintain emergency access					
Property Protection	1	Project will protect roadways from flooding, culvert damages					
Cost-Effectiveness	1						
Technical	1	The project is technically feasible					
Political	1						
Legal	1	The Township 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, Flood					
Timeline	1	2 years					
Agency Champion	1	Engineer, DPW Supervisor					
Other Community Objectives	1						
Total	13						
Priority (High/Med/Low)	High						





	Δ	ction W	orkshee	t			
Project Name:	Repetitive Loss Mitig		UI KSHEE	t			
Project Number:	2021-Byram-006	Sacion					
Project Number:	-	clr / Wul	nerabilit	tar			
			merabili	ty			
Hazard(s) of Concern:	Flood, Severe Weath						
Description of the Problem:	f the Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 3 repetitive loss properties but other properties may be impacted by flooding as well.						
	Action or Proje						
Description of the Solution:							
Is this project related to a C Lifeline?	Critical Facility or	Yes		No 🖂			
Level of Protection:	1% annual chance flood     Estimated Benefits       event + freeboard (in     Estimated Benefits       accordance with flood     (losses avoided):				Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.		
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)		Goals Met:		2		
Estimated Cost:	\$1 Million		Mitigation Action Type:		Structure and Infrastructure Project		
		for Imp	lementa				
Prioritization:	High		Desired Timeframe for Implementation:		6-12 months		
Estimated Time Required for Project Implementation:	Three years		Potential Funding Sources:		FEMA HMGP and FMA, local cost share by residents		
Responsible Organization:	NFIP Floodplain Administrator, suppor homeowners	ted by	Local Planning Mechanisms to be Used in Implementation if any:		Hazard Mitigation		
	Three Alternatives	s Consid					
	Action		E	stimated Cost	Evaluation		
Alternatives:	No Action Elevate homes		\$0 \$500,000		Current problem continuesWhen this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads		
	Elevate roads \$500,000						
	Progress Re	port (fo	r plan ma	aintenance)			
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							







Action Worksheet							
Project Name:	Repetitive Loss Mitigation	n					
Project Number:	2021-Byram-006						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Families moved out of high-risk flood areas.					
Property Protection	1	Properties removed from high-risk flood areas.					
Cost-Effectiveness	1	Cost-effective project					
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	0	Project would remove families from the flood prone areas of the Township.					
Administrative	0						
Multi-Hazard	1	Flood, Severe Weather					
Timeline	0						
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners					
Other Community Objectives	1						
Total	10						
Priority (High/Med/Low)	High						





# 9.6 TOWNSHIP OF FRANKFORD

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

# 9.6.1 Hazard Mitigation Planning Team

The Township of Frankford 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).

Primary Poi	nt of Contact	Alternate Point of Contact				
Name / Title: Jeff Lewis, OEl		Name / Title: Scott Klosterhoff, OEM Deputy Coordinator				
Address: Frankford Township		Address: Frankford Township Municipal Building				
151 US Highway 206, Augus		151 US Highway 206, Augusta NJ 07822				
Phone Number: 973-479-720	•	Phone Number: 973-534-7699				
Email: jlewis310@embarqma	ul.com	Email: klosterhoffconstruction@gmail.com				
NFIP Floodplain Administ	rator					
Name / Title: Harold Pellow,	Engineer					
Address: 17 Plains Road, Aug						
Phone Number: (973) 948-64						
Email: hpellow@hpellow.cor						
Name	Title	Method of Participation				
Jeff Lewis	OEM Coordinator	Primary point of contact; attended the annex training, risk assessment meeting and mitigation strategy workshop; provided data and updated information for the annex.*				
Scott Klosterhoff	OEM Deputy Coordinator	Alternate point of contact				
Harold Pellow	Engineer and Planner	NFIP Floodplain administrator, provided data and information, reviewed annex*				
Lori Nienstedt	Administrator	Reviewed annex*				
Sharon M. Yarosz	Fiscal/CFO	Reviewed annex*				
Robert Huber	Building Code Official	Reviewed annex*				
Mark Yetter	Public Works	Reviewed annex*				
Lt. J. Shotwell	Police Station Commander	Reviewed annex*				

#### Table 9.6-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B





# 9.6.2 Jurisdiction Profile

Frankford Township is geographically located in the center of Sussex County. It encompasses 34.8 square miles and contains two natural lakes, Culver Lake and Lake Owassa, and the Kittatinny Mountains. The Township is bordered to the north by Montague Township, to the northeast by the Township of Wantage, to the east by Lafayette Township, to the south by Hampton Township and to the west by the Townships of Sandyston and Walpack. Papakating Creek, Dry Brook, Paulins Kill, and Culvers Creek all flow throughout the Township. The following unincorporated communities are located within the Township: Culvers Inlet, Mount Pisgah, Augusta, Ross' Corner, Northrup, Plains, Armstrong, Pelletown, and Wykertown.

According to the U.S. Census, the 2010 population for the Township of Frankford was 5,565. The estimated 2018 population was 5,361, a 3.6 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 3.2 percent of the population is 5 years of age or younger and 20.1 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.

# 9.6.3 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 9.5-2 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.

Type of Development	20	015	2016		20	017	2018		2019	
Number	of Build	ing Permi	ts for Ne	w Constru	iction Is	sued Since	the Prev	vious HMI	P	
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single and Two-Family Units	430	0	420	0	464	0	428	0	420	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed- use, etc.)	5	0	13	0	1	0	4	0	7	0
Property or Development Name		ype of opment	# of Units /		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
	Recent	Major Dev	velopmer	nt and Inf	rastructi	ure from 2	2015 to P	resent		
Quick Check	Comme	ercial	1		77 US Highway 206 Augusta, NJ		-		Complete	
Known or A	nticipat	ed Major	Develop	ment and	Infrastru	ucture in t	he Next	Five (5) Y	ears	
Wawa	Comme	ercial	1		1 NJ-1: August	-	J None		Proposed	

## Table 9.6-2. Recent and Expected Future Development

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

SFHA = Special Flood Hazard Area





# 9.6.4 Capability Assessment

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

		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?			
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.		
Codes, Ordinances, & Requirements							
Building Code	Yes	State & Local	Yes	Yes	-		
Adopted 9/3/2019 • The Building Department is responsible et seq.,), and Chapter 7 – Building and Zoning Code		mpliance with State Un Local	Yes – if municipality has a Planning	ion Code Act, (N Yes	I.S. 52:27D-119 -		
Comment:       Items of Board         • 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 and Zoning Department are responsible for this code in compliance with Chapter 30, Article 10 – Land Use/Zoning.         Subdivisions       Yes         Local       Yes							

# Table 9.6-3. Planning, Legal and Regulatory Capability





	Authority that		Have aspects of the HMP been integrated into you codes/ordinances/plans	
<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
		Planning Board		

#### Comment:

- 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 Land Use Board is responsible for this ordinance in compliance with Chapter 15- Land Subdivision.

Stormwater Management	Yes	Local	Yes	Yes	-	
Comment: • See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8 • This ordinance follows Chapter 32 of municipal code.						
Post-Disaster Recovery	No	-	No	-	-	
Comment:		L		1		
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-	
<b>Comment:</b> N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Con improvements, fees for services and amenities, the t and police, as well as any hazards, risks or nuisance	nmission. The POS ype of title and ow	S provides information s mership interest being o	such as estimated	d completion date	es for	
Growth Management	No	-	Yes – if municipality has a Planning Board	-	-	
Comment: • State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make	lineation of Growt	h Areas and Environs;	Use of the endor	sed plans in the		
Site Plan Review	Yes	County & Local	Yes – if municipality has a Planning Board	Yes	-	
<ul> <li>Comment:</li> <li>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 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.</li> </ul>						
Environmental Protection	Yes	Local	No	Yes	-	
Comment:						

Chapter 20 Environmental Protection

• This section provides for the replacement or reimbursement of the specialized and sometimes nonreusable equipment required by State and Federal regulations to be made available in the Township in case of fire, leakage or spillage involving any hazardous material.



	Do you have this? (Yes/No)	Authority that	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
		enforces (Federal, State, Regional, County, Local)		If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>This section entitles the Town any of its agencies in extingu materials.</li> <li>Chapter BH9 Litter Control</li> </ul>					
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	2021- Frankford-003
Comment:		Local			Flaikiold-005
federal acts to support minimization of J floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. The Engineering Department is respons It is the purpose of this chapter to promedute to flood conditions in specific areas a. Protect human life and hete b. Minimize expenditure of p c. Minimize the need for resc the general public; d. Minimize prolonged busin e. Minimize damage to public streets, bridges located in ar f. Help maintain a stable tax as to minimize future flood b g. Ensure that potential buye h. Ensure that those who occ	lity must be review ce. Regulations for ible for this ordina- ote the public heal by provisions desi- alth; ublic money for co- ue and relief effor ess interruptions; c facilities and util eas of special flood base by providing light areas; rs are notified tha- upy the areas of sp	ved for compliance with r the Flood Control Has unce in compliance with th, safety, and general v igned to: estly flood control projects associated with flood lities such as water and d hazard; for the second use and t property is in an area pecial flood hazard assu	these regulation cards Act were a Chapter 27 – F welfare, and to n cts; ing and general gas mains, elect development of of special flood une responsibili	ns. In addition, p dopted in 2007 a lood Damage Pro ninimize public an ly undertaken at t ric, telephone an areas of special f hazard; and ty for their action	articipation in nd amended evention. nd private losses the expense of d sewer lines, lood hazard so s.
• The Flood Damage Frevention Oralinan Wellhead Protection	Yes	Local	No	Yes	requirement.
Comment: • Chapter 30-617 Aquifer and Wellhead F and aquifer/well testing ordinance to de areas not served by public water supply.	Protection was ado termine adequate g	pted to provide the Tow	nship with guid	elines for an aqui	
Emergency Management	Yes	Local	No	No	-
Comment: <ul> <li>Chapter 3 Police Regulations</li> <li>Chapter 14 Fire Protection and Prevent</li> </ul>	ion				
Climate Change	No	-	No	-	-
Comment:		I			
Disaster Recovery Ordinance	No	-	No	-	-
Comment:		I			
Disaster Reconstruction Ordinance	No	_	No	-	-
Comment:					
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	No	-	No	-	-
Comment:		ı		I	
Dianatina Danamanta					
Planning Documents	V	T - 1	V	N	
Comprehensive / Master Plan Comment:	Yes	Local	Yes	No	-
<ul> <li>2018 Revised NJ Statute 40:27-2; the co the county. The master plan of a county, show the county planning board's recon among other things, the general locatio developments, parkways, playgrounds, f the general location and extent of forest</li> </ul>	with the accompa umendations for the n, character, and co orests, reservation	nying maps, plats, char e development of the te extent of streets or road ns, parks, airports, and	ts, and descripti rritory covered s, viaducts, brid other public wa	ve and explanato by the plan, and 1 ges, waterway an ys, grounds, place	ry matter, shall nay include, nd waterfront es and spaces;

(Tł



Do you have this? (Yes/No)enforces (Federal, State, Regional, County, Local)Is this State Mandated?If yes- how? Describe in comments.If no - add Mitigation Action #, if applicable.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 Land Use Board is responsible for this plan. This plan was adopted in 2004 with periodic updates.Capital Improvement PlanYes• The Engineering Department is responsible for this plan, which is updated annually.Disector Debris Management PlanNoNoYes2021-			Authority that	State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
importani to the development of the county. The county planning board shall encourage the co-operation of the local manifest plan and to advise the board of chosen commissioners with respect to the formulation of development programs and bagest for capital expenditures. Per State of NJ Mincicgal Land Use Law (MULU) L. 1975, 2, eff. Jag. 1, 976 0-9550-28 provides the required components of a municipal Master Plan on and requires that each municipality prepare a master plan and ugdest for capital expenditures. Per State of NJ Mincicgal Land Use Law (MULU) L. 1975, 2, eff. Jag. 1976 0-9550-28 provides the required components of a municipal Master Plan on what Master Plan on will not be benefited form a presumption of vuldaty. The Land Use Board is responsible for this plan. This plan was adopted in 2004 with periodic updates. Capital Improvement Plan Ves Local No No - Comment:  The Engineering Department is responsible for this plan. Which is updated annually.  Dissafer Debris Management Plan Yes Local No Yes - 2021- Frankford-00 Comment: The Engineering Department is responsible for this plan.  Stormwater Management Plan Yes State & Local Yes Comment: The Engineering Department is responsible for this plan.  The Engineering Department is responsible for this plan.  Stormwater Management rules (NJ.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 their quality controls, and rund figually controls. The rules advectogeneut the development the development the development the development the development the base of stormwater plans and establish the stormwater management technique grand performance standards for new development the field municipal stormwater management plans and establish the stormwater management technique grand performance standards for new development the development the development the bio cave of unotimicital startwater and the dave de		enforces Do you have (Federal, State this? Regional, Coun	enforces (Federal, State, Regional, County, Local)		Describe in comments.	Mitigation Action #, if applicable.
The Engineering Department is responsible for this plan, which is updated annually.         Disaster Debris Management Plan       No       State & Local       Yes       Yes       2021- Frankford-00         Comment:       Elodoplain or Watershed Plan       Yes       Local       No       Yes       -         Comment:       -       The Engineering Department is responsible for this plan.       State & Local       Yes       -       -         Comment:       -       The Stormwater Management Plan       Yes       State & Local       Yes       -       -         Comment:       -       The Stormwater Management Plan       Yes       State & Local       Yes       -       -         Comment:       -       The Stormwater Management Plan       Yes       State & Local       Yes       -	important to the development of the cou municipalities within the county in any advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be	nty. The county pla matters whatsoever ers with respect to I Land Use Law (M and requires that consistent with the	unning board shall enco which may concern the the formulation of devel (LUL) L. 1975, s. 2, eff. each municipality prepa Master Plan or will noo	urage the co-op e integrity of the lopment progran Aug 1, 1976 40:. are a master pla t be benefitted fr	eration of the loc county master pl as and budgets fo 55D-28 provides n and update it e om a presumption	al lan and to or capital the required very 6 years.
• The Engineering Department is responsible for this plan, which is updated annually.         Disaster Debris Management Plan       No       State & Local       Yes       Yes       2021- Frankford-00         Comment:       File       Frankford-00       Yes       Local       No       Yes       -         Floodplain or Watershed Plan       Yes       Local       No       Yes       -         Comment:       •       The Engineering Department is responsible for this plan.       -       -       -         Stormwater Management Plan       Yes       State & Local       Yes       -       -         Comment:       •       The Stormwater Management Plans       Yes       - <t< th=""><th>Capital Improvement Plan</th><th>Yes</th><th>Local</th><th>No</th><th>No</th><th>-</th></t<>	Capital Improvement Plan	Yes	Local	No	No	-
Disaster Debris Management Plan         No         State & Local         Yes         Frankford-00           Comment:         Fronkford-00         Frankford-00         <		ible for this plan, w	which is updated annual	lly.		
Floodplain or Watershed Plan         Yes         Local         No         Yes         .           Comment:         •         The Engineering Department is responsible for this plan.         State & Local         Yes         -	Disaster Debris Management Plan	No	State & Local	Yes	Yes	2021- Frankford-002
Comment:       • The Engineering Department is responsible for this plan.         Stormwater Management Plan       Yes       State & Local       Yes       -         Comment:       • The Normwater 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 include groundwater recharge, runoff quantity controls, and runoff quality controls. The rules establish for new (development. The design and performance standards for new (proposed) development. The design and performance standards for new (development include groundwater recharge, stormwater management techniques including minimizing disturbance, as a primary consideration, the use of nostructural stormwater management techniques including minimizing disturbance, as a primary consideration, the use of nostructural stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater ground quantity control, stormwater and group quality control, and the prohibit of 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.         Stormwater Pollution Prevention Plan       Yes       State & Local       Yes       -         Comment:       •       •       •       •       •         •       The Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program (NJPDES) rules (N.J.A.C. 7:14.14		V	Lecel	N.	V	
Stormwater Management Plan         Yes         State & Local         Yes         .           Comment: <ul></ul>		Yes	Local	No	Yes	-
Comment:       • The Stormwater Management rules (N.J.A.C. 7:8) rules were published in the February 2, 2004 NJ Register. These rules set for the required components of regional and municipal stormwater management plans and establish the stormwater management 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 nostromwater management techniques including minimizing disturbance, minimizing the use of stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater manoff quantity control, stormwater anoff quality control, stormwater anoff quality control, stormwater nanoff quality controls.         Stormwater Pollution Prevention Plan       Yes       State & Local       Yes       -         Comment:       •       •       •       •       •         •       The Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program (NJPDES) rules (N.J.A.C. 7:13.       *       •	The Engineering Department is response	ible for this plan.				
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 metformance standards for new (evelopment tinclude 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 runoff quantity control, stormwater runoff quality control, and the prohibitio     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.     Stormwater Pollution Prevention Plan Yes State & Local Yes	Stormwater Management Plan	Yes	State & Local	Yes	-	-
Comment:       • 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 include measures such as: the adoption of ordinances (litter control, pet waste, wildlife feeding, proper waste disposal, etc.); the development of a municipal stormwater management plan and implementing ordinance(s); requiring certain maintenance activities (such as street sweeping and catch basin cleaning); implementing solids and floatables control; locating discharge points and stenciling catch basins; and a public education component.         Urban Water Management Plan       No       -       No       -         Kesonomic Development Plan       Yes       County       No       -       -         Shoreline Management Plan       No       -       -       -       -       -         Shoreline Management Plan       No       -       -       -       -       -         Comment:       -       -       - <t< th=""><th>requirements for groundwater recharge of major development to be located with</th><th>, stormwater runoj nin or to discharge</th><th>f quantity control, storn</th><th>nwater runoff qu</th><th>ality control, and</th><th></th></t<>	requirements for groundwater recharge of major development to be located with	, stormwater runoj nin or to discharge	f quantity control, storn	nwater runoff qu	ality control, and	
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 stabilish 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 sever 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 discharges and floatables control; locating discharge points and stenciling catch basins; and a public education component.      Urban Water Management Plan No - No Comment:     Economic Development Partnership is responsible for this plan.     Yes - if	,	partment unaer the				
Urban Water Management Plan       No       -       No       -       -       -         Comment:       -       -       No       -       No       -       -       -         Habitat Conservation Plan       No       -       No       -       -       -         Comment:       -       -       No       -       -       -       -         Economic Development Plan       Yes       County       No       -       -       -         Comment:       -       -       -       -       -       -       -         •       The Economic Development Partnership is responsible for this plan.       Yes – if       -       -       -         Shoreline Management Plan       No       -       Yes – if       -       -       -	Stormwater Pollution Prevention Plan		e Flood Hazard Area Co	ontrol Act Rules,		
Habitat Conservation PlanNo-No-Comment:Economic Development PlanYesCountyNoComment: • The Economic Development Partnership is responsible for this plan.Yes - if located in aShoreline Management PlanNo-Yes - if located in a	Stormwater Pollution Prevention Plan Comment:  • The Phase II New Jersey Pollutant Disc 7:14A) were published in the February associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from th ordinances (litter control, pet waste, wi management plan and implementing ord basin cleaning); implementing solids an	Yes harge Elimination 2, 2004, NJ Regist off. The NJPDES 1 ter Act. These NJI sewer systems, kn 5 such as universiti ram establishes the ese sources. The S dilife feeding, prop linance(s); requiri	e Flood Hazard Area Co State & Local System Stormwater Reg er. These NJPDES rules rules establish a regulat PDES rules govern the th own as MS4s. Under the es and hospitals, and St Statewide Basic Require tatewide Basic Requirer er waste disposal, etc.), ng certain maintenance	ontrol Act Rules, Yes gulation Progran s are intended to ory program for issuance of perm is program, pern tate, interstate au rements that mus ments include me the developmer activities (such	N.J.A.C. 7:13. - n (NJPDES) rule address and red existing stormwo its to entities tha nits must be secur nd federal agencies to be implemented easures such as: t tt of a municipal as street sweepin	ian zone s (N.J.A.C. uce pollutants ater discharges t own or red by es that operate d to reduce the adoption of stornwater g and catch
Comment:       Economic Development Plan     Yes     County     No     -       Comment:     • The Economic Development Partnership is responsible for this plan.       Shoreline Management Plan     No     -     Yes - if located in a	Stormwater Pollution Prevention Plan Comment:  The Phase II New Jersey Pollutant Disc 7:14A) were published in the February associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit prog nonpoint source pollutant loads from th ordinances (litter control, pet waste, wit management plan and implementing ord basin cleaning); implementing solids an education component.	Yes harge Elimination 2, 2004, NJ Registo off. The NJPDES I ater Act. These NJI sewer systems, kn. s such as universiti am establishes the ese sources. The So Idlife feeding, prop linance(s); requiri d floatables contro	e Flood Hazard Area Co State & Local System Stormwater Reg er. These NJPDES rules rules establish a regulat PDES rules govern the th own as MS4s. Under the es and hospitals, and St Statewide Basic Require tatewide Basic Requirer er waste disposal, etc.), ng certain maintenance	ontrol Act Rules, Yes gulation Program s are intended to ory program, perm issuance of perm is program, perm iste, interstate au rements that mus nents include me the developmer activities (such oints and stencil	N.J.A.C. 7:13. - n (NJPDES) rule address and red existing stormwo its to entities tha nits must be secur nd federal agencies to be implemented easures such as: t tt of a municipal as street sweepin	ian zone s (N.J.A.C. uce pollutants ater discharges t own or red by es that operate d to reduce the adoption of stornwater g and catch
Economic Development PlanYesCountyNo-Comment: • The Economic Development Partnership is responsible for this plan.Shoreline Management PlanNo-Yes - if located in a-	<ul> <li>Stormwater Pollution Prevention Plan</li> <li>Comment:         <ul> <li>The Phase II New Jersey Pollutant Disc 7:14A) were published in the February associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from th ordinances (litter control, pet waste, wi management plan and implementing ord basin cleaning); implementing solids an education component.</li> </ul> </li> <li>Urban Water Management Plan</li> </ul>	Yes harge Elimination 2, 2004, NJ Registo off. The NJPDES I ater Act. These NJI sewer systems, kn. s such as universiti am establishes the ese sources. The So Idlife feeding, prop linance(s); requiri d floatables contro	e Flood Hazard Area Co State & Local System Stormwater Reg er. These NJPDES rules rules establish a regulat PDES rules govern the th own as MS4s. Under the es and hospitals, and St Statewide Basic Require tatewide Basic Requirer er waste disposal, etc.), ng certain maintenance	ontrol Act Rules, Yes gulation Program s are intended to ory program, perm issuance of perm is program, perm iste, interstate au rements that mus nents include me the developmer activities (such oints and stencil	N.J.A.C. 7:13. - n (NJPDES) rule address and red existing stormwo its to entities tha nits must be secur nd federal agencies to be implemented easures such as: t tt of a municipal as street sweepin	ian zone s (N.J.A.C. uce pollutants ater discharges t own or red by ies that operate d to reduce the adoption of stornwater g and catch
Comment:     Yes - if       • The Economic Development Partnership is responsible for this plan.       Shoreline Management Plan       No	Stormwater Pollution Prevention Plan         Comment:         • The Phase II New Jersey Pollutant Disc         7:14A) were published in the February         associated with existing stormwater run         as required under the Federal Clean Wa         operate small municipal separate storm         municipalities, certain public complexes         or maintain highways. The permit progn         nonpoint source pollutant loads from th         ordinances (litter control, pet waste, with         management plan and implementing ord         basin cleaning); implementing solids an         education component.         Urban Water Management Plan         Comment:	Yes harge Elimination 2, 2004, NJ Registo off. The NJPDES I ater Act. These NJI sewer systems, kn. s such as universiti ram establishes the ese sources. The St dlife feeding, prop linance(s); requiri d floatables contro No	e Flood Hazard Area Co State & Local System Stormwater Reg er. These NJPDES rules rules establish a regulat PDES rules govern the r pown as MS4s. Under thi es and hospitals, and St Statewide Basic Requirer er waste disposal, etc.), ng certain maintenance l; locating discharge po -	ontrol Act Rules, Yes gulation Program s are intended to ory program, pern issuance of perm issuance of perm is program, pern tate, interstate an rements that mus nents include me the developmer activities (such oints and stencil No	N.J.A.C. 7:13. - n (NJPDES) rule address and red existing stormwo its to entities tha nits must be secur nd federal agencies to be implemented easures such as: t tt of a municipal as street sweepin	ian zone s (N.J.A.C. uce pollutants ater discharges t own or red by es that operate d to reduce the adoption of stornwater g and catch
The Economic Development Partnership is responsible for this plan.      Yes – if -     located in a	<ul> <li>Stormwater Pollution Prevention Plan</li> <li>Comment:         <ul> <li>The Phase II New Jersey Pollutant Disc 7:14A) were published in the February associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from th ordinances (litter control, pet waste, wi management plan and implementing ord basin cleaning); implementing solids an education component.</li> </ul> </li> <li>Urban Water Management Plan</li> <li>Comment:</li> <li>Habitat Conservation Plan</li> </ul>	Yes harge Elimination 2, 2004, NJ Registo off. The NJPDES I ater Act. These NJI sewer systems, kn. s such as universiti ram establishes the ese sources. The St dlife feeding, prop linance(s); requiri d floatables contro No	e Flood Hazard Area Co State & Local System Stormwater Reg er. These NJPDES rules rules establish a regulat PDES rules govern the r pown as MS4s. Under thi es and hospitals, and St Statewide Basic Requirer er waste disposal, etc.), ng certain maintenance l; locating discharge po -	ontrol Act Rules, Yes gulation Program s are intended to ory program, pern issuance of perm issuance of perm is program, pern tate, interstate an rements that mus nents include me the developmer activities (such oints and stencil No	N.J.A.C. 7:13. - n (NJPDES) rule address and red existing stormwo its to entities tha nits must be secur nd federal agencies to be implemented easures such as: t tt of a municipal as street sweepin	ian zone s (N.J.A.C. uce pollutants ater discharges t own or red by es that operate d to reduce the adoption of stornwater g and catch
Shoreline Management Plan No - located in a	Stormwater Pollution Prevention Plan         Comment:         • The Phase II New Jersey Pollutant Disc         7:14A) were published in the February         associated with existing stormwater run         as required under the Federal Clean Wa         operate small municipal separate storm         municipalities, certain public complexes         or maintain highways. The permit progr         nonpoint source pollutant loads from th         ordinances (litter control, pet waste, with         management plan and implementing ord         basin cleaning); implementing solids an         education component.         Urban Water Management Plan         Comment:         Habitat Conservation Plan         Comment:	Yes harge Elimination 2, 2004, NJ Registo off. The NJPDES I atter Act. These NJI sewer systems, kn. s such as universiti ram establishes the ese sources. The St dilife feeding, prop linance(s); requiri d floatables contro No No	e Flood Hazard Area Co State & Local System Stormwater Reg er. These NJPDES rules ules establish a regulat PDES rules govern the u own as MS4s. Under thi es and hospitals, and Su Statewide Basic Requirer er waste disposal, etc.), ng certain maintenance ul; locating discharge po -	ontrol Act Rules, Yes gulation Program s are intended to ory program, perm issuance of perm issuance of perm tate, interstate au rements that mus ments include me the developmen activities (such oints and stencil No	N.J.A.C. 7:13. - n (NJPDES) rule address and red existing stormwa its to entities tha nits must be secur nd federal agencies to be implemented pasures such as: t to of a municipal as street sweepin ing catch basins; -	ian zone ian zone is (N.J.A.C. uce pollutants ater discharges t own or red by ies that operate t o reduce the adoption of stormwater g and catch and a public 
	Stormwater Pollution Prevention Plan Comment:  The Phase II New Jersey Pollutant Disc 7:14A) were published in the February associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from th ordinances (litter control, pet waste, wi management plan and implementing or basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment:	Yes harge Elimination 2, 2004, NJ Registe off. The NJPDES 1 atter Act. These NJI sewer systems, kn. s such as universiti ram establishes the ese sources. The S idlife feeding, prop linance(s); requiri id floatables contro No No Yes	e Flood Hazard Area Co State & Local System Stormwater Reg er. These NJPDES rules rules establish a regulat PDES rules govern the r own as MS4s. Under thi es and hospitals, and St Statewide Basic Requirer er waste disposal, etc.), ng certain maintenance ol; locating discharge po - - County	ontrol Act Rules, Yes gulation Program s are intended to ory program, perm issuance of perm issuance of perm tate, interstate au rements that mus ments include me the developmen activities (such oints and stencil No	N.J.A.C. 7:13. - n (NJPDES) rule address and red existing stormwa its to entities tha nits must be secur nd federal agencies to be implemented pasures such as: t to of a municipal as street sweepin ing catch basins; -	ian zone ian zone is (N.J.A.C. uce pollutants ater discharges t own or red by ies that operate d to reduce the adoption of stormwater g and catch and a public 



	Authority that enforces Do you have (Federal, State, this? Regional, County, (Yes/No) Local)			Have aspects of the HMP been integrated into your codes/ordinances/plans?	
			Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>NJ Coastal Area Facility Review Act (N including construction, relocation, and structures, and site preparation. This la</li> </ul>	enlargement of bui	ildings or structures, an	d excavation, gr	ading, shore prot	ection
Community Wildfire Protection Plan	No	-	No	-	-
Comment:					
Community Forest Management Plan	No	-	No	-	-
Comment:					
Transportation Plan	No	-	No	-	-
Comment:			1		
Agriculture Plan	No	-	No	-	-
Comment:		ı			
Climate Action Plan	No	-	No	-	-
Comment:					
Tourism Plan	No	-	No	_	-
Comment:					
Business Development Plan	No	-	No	_	-
Comment:					
Other: Open Space Plan	Yes	Local	No	No	-
Comment:					
The Open Space Commission is response	tible for this plan, 1	which was updated I 20	16 has a part of	the Master Plan.	
Response/Recovery Planning Comprehensive Emergency Management Plan	T				
(CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-
Comment: • Each county and municipality in the State necessary to implement the plan. Each a Emergency Planning Guidelines have b subsequent scheduled review of the State • The Office of Emergency Management in	Emergency Operat een adopted by the e Emergency Oper	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2	ted no later than ncy Managemen	one year after th	e State
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	County & Local	No	-	-
Comment:					
County Function  Post-Disaster Recovery Plan	No	-	No	_	_
Comment:	110	_	110	-	-
Continuity of Operations Plan	Yes	County and Local	No		
Comment:	1 05	County and Local	INU	-	-
Public Health Plan	Yes	County and Local	No	-	
Comment:	105	County and Local	110	-	-
Part of ESF; Deputy Clerk works with 1	Board of Health	1			
Other	No	-	No	-	-
Comment:					





## Table 9.6-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes
Does your jurisdiction have the ability to track permits by hazard area?	Yes
Does your jurisdiction have a buildable lands inventory? -If yes, please describe briefly. -If no, please quantitatively describe the level of buildout in the jurisdiction.	Yes The Township completed a Buildable Lands Inventory as part of its affordable housing planning initiative.

#### **ADMINISTRATIVE AND TECHNICAL CAPABILITY**

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

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability	•	
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	-
Environmental Board / Commission	No	-
Open Space Board / Committee	Yes	Open Space Board; Parks Commission
Economic Development Commission / Committee	Yes	Economic Development Committee
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Swift Water Reach 9-1-1 (through County)
Maintenance program to reduce risk	Yes	Department of Public Works
Mutual aid agreements	Yes	Rescue Squad, Volunteer Fire Department with surrounding communities in conjunction with County
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Professional services agreement with Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Professional services agreement with Engineer
Planners or engineers with an understanding of natural hazards	Yes	Professional services agreement with Engineer
Staff with training in benefit/cost analysis	No	-
Staff with training in green infrastructure	Yes	Harold Pellow & Associates
Staff with education/knowledge/training in low impact development	Yes	Harold Pellow & Associates
Surveyor	Yes	Mayor & Council
Stormwater engineer	Yes	Harold Pellow & Associates
Personnel skilled or trained in GIS applications	No	State
Local or state water quality professional	Yes	Harold Pellow & Associates
Scientist familiar with natural hazards in local area	No	State
Emergency manager	Yes	OEM
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	No	-
Resilience Officer	No	-

#### Table 9.6-5. Administrative and Technical Capabilities





Staff/Personnel Resource	Available?	Department/Agency/Position
Other: NFIP Floodplain Administrator	Yes	Township Engineer per municipal code
Other: Professionals trained in conducting damage assessments	Yes	No

# FISCAL CAPABILITY

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

# **Table 9.6-6. Fiscal Capabilities**

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes
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	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	No
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 Frankford.

# Table 9.6-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	Yes, information on coronavirus.
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.	No

# **COMMUNITY CLASSIFICATIONS**

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





Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (Fire ISO Protection Class)	No	-	-
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	No	-	-

#### **Table 9.6-8. Community Classifications**

#### 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 9.6-9. Adaptive Capacity

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

Notes:

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

# NATIONAL FLOOD INSURANCE PROGRAM

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

# Table 9.6-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Engineering





Criterion	Response
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 meets minimum requirements set by FEMA and the State.
When was the most recent Community Assistance Visit or Community Assistance Contact?	September 7, 2010
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?	Yes, additional training for staff is encouraged.
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
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	20 policies \$6,511,500 insurance in force \$31,040 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	11 claims \$61,459 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

\*According to FEMA statistics as of October 13, 2020

Reference: FEMA 2020

# 9.6.5 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 Frankford'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 9.5-11 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.





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 <sup>rd</sup> and 24th.	Although the County was impacted, the Township did not report significant impacts.
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 subject to municipal office closures and social distancing and masking requirements.

#### Table 9.6-11. Hazard Event History

Source: FEMA 2020, NOAA NCEI 2020

# 9.6.6 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 Frankford 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 Frankford 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 Frankford has significant exposure.

# **REPETITIVE FLOOD LOSSES**

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

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

Source: FEMA 2019

#### **CRITICAL FACILITIES**

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

		Exposure		
Name	Туре	1% Event	0.2% Event	
Main Library	Shelter	Х	Х	
21-3 Culvers Lake Dam	Dam	Х	Х	
22-8 Stinson Pond Dam	Dam	Х	Х	
22-14 No Name #42 Dam	Dam	Х	Х	
22-127 Sussex County Farm Dam	Dam	Х	Х	

# Table 9.6-12. Critical Facilities and Lifelines Flood Exposure





Source: Sussex County Planning Partnership 2020 Note: \*Identified lifeline

# **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- The Flood Damage Prevention Ordinance requires update to include freeboard.
- Drainage issues are experienced in the Culver Lake area. The Township is replacing tiles with plastic piping.

# 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 Frankford 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 Frankford. The Township of Frankford 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 Frankford agreed with the calculated hazard rankings.

Dam Failure Low	Disease Outbreak Medium	utbreak Drought Earthquake Flood				Geologic Medium		
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	-	Severe Nor'Easter Weathe		ther	Severe Winter Weather	Wildfire
Medium	High	Medium	Н	igh	Hi	igh	High	Low

# Table 9.6-13. Township of Frankford Hazard Ranking

# 9.6.7 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 9.5-15 and Table 9.5-16 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.





			Status (In Progress, No	Include in the 2021 HMP Update?	
2016	2016 Action Number Action Description		Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Frankford- 1 (old #1 and 4)	Ensure continuity of operations. Purchase and install generators for critical facilities in the Township: • Fire Department – Stations 1 & 2 Municipal Building	Township	Complete		
Frankford- 2 (new)	Incorporate risk assessment and hazard mitigation principles into comprehensive planning efforts.	Township	Ongoing Capability		
Frankford- 3 (new)	Conduct an engineering study to identify the flooding issues on Culvers Lake and Union Turnpike. Once study is completed, identify mitigation strategies to correct this issue.	Engineering	Ongoing Capability		
Frankford- 4 (new)	Upgrading of culverts on Ridge Road and Plains Road. This area tends to accumulate water during heavy rain events.	DPW, Engineering	No Progress, no longer considered necessary		
Frankford- 5 (revised old #6 and 9)	Continue to develop and enhance the Township's public outreach and education program on mitigation related issues. Provide information on all types of hazards, preparedness and mitigation measures, and responses on the Township website.	Township, OEM	Ongoing Capability		
Frankford- 6 (old #8)	Install a storm warning system on the firehouse located on Route 206 once it is constructed.	Township OEM, Fire Department	No Progress		

In addition to the above progress, the Township of Frankford 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 Frankford 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 Frankford 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 9.5-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Frankford 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 9.5-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.6-15. 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- Frankford -001	Dam Inspection and Outreach	<ul> <li>Problem: There are a number of dams in Frankford that are located in flood zones, provide recreational uses, and downstream flood protection. The structural conditions of these dams needs to be assessed for safety, with findings reported to the Township.</li> <li>Solution: The Township will complete outreach and work with dam owners to ensure that structural assessments are completed. Where repairs are necessary, the Township Engineer will work with the property owner to design repairs and the Township will assist in identification</li> </ul>	Existing	Dam Failure, Flood Hurricane/ Tropical Storm, Nor'Easter , Severe Weather Severe Winter Weather	3, 5, 6	Township OEM/Admi nistration, NJDEP; Township Private owners	Staff Time	Enhanc ed safety and technic al capabil ities	TBD	Wi thi 3 ye ars	Hig h	SIP, LPR	PR, SP
2021- Frankford -002	Disaster Debris Management Plan	of funding support where necessary. <b>Problem:</b> The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage. <b>Solution:</b> The Township will develop a debris management plan that will assist the municipality when they need to facilitate response and recovery after a debris-causing incident. The plan will	Existing	Flood, Hurricane, Nor'Easter , Severe Weather, Severe Winter Weather, Wildfire	3, 5, 6	OEM, Public Works	Township budget	Increas ed disaste r capabil ity and prepare dness	Staff time	1 ye ar	Hig h	LPR	ES
2021- Frankford -003	Flood Damage Prevention Ordinance Update	<ul> <li>provide direction to facilitate and coordinate the management of debris following a disaster.</li> <li>Problem: The Township's Flood Damage Prevention Ordinance lacks language to include the state mandated freeboard requirement.</li> <li>Solution: The Township will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement.</li> </ul>	New	Flood	2	Administrat ion	Borough budget	Meet state standar ds	Staff time	Wi thi n 6 m on ths	Hig h	LPR	PR
2021- Frankford -004	Blue Ridge Rescue Squad Backup Power	<b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. The Blue Ridge Rescue	Existing	Severe Weather, Severe	1, 3	Engineer, Blue Ridge	FEMA HMGP and BRIC,	Ensure s continu	\$50,0 00	Wi thi n	Hig h	SIP	ES





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
		Squad located at 350 US Highway 206 Branchville, NJ 07826 lacks a backup power source. The facility is considered to be a critical facility. <b>Solution:</b> The Engineer will work with the Rescue Squad to research what size generator is needed to power the facility. The Township will then provide assistance pursuing funds and guide the purchase and installation of the selected generator and necessary electrical components to supply backup power to the Blue Ridge Rescue Squad.		Winter Weather, Hurricane, Nor'Easter		Rescue Squad	USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Rescue Squad Budget	ity of operati ons of Rescue Squad		5 ye ars			

Building Resilient Infrastructure and Communities

Flood Mitigation Assistance Grant Program

Hazard Mitigation Grant Program

Notes:

#### Acronyms and Abbreviations:

- Community Assistance Visit CAV
- 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

#### 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. •

Potential FEMA HMA Funding Sources:

BRIC

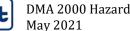
FMA

HMGP

- 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 ٠ 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.
- ٠ 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. ٠ 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.
- ٠ 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.



#### 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.



- 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.



A

Table 9.6-16.	Summary o	f Evaluation	and Action	n Priorities
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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- Frankford- 001	Dam Inspection and Outreach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Frankford- 002	Disaster Debris Management Plan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Frankford- 003	Flood Damage Prevention Ordinance Update	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2021- Frankford- 004	Blue Ridge Rescue Squad Backup Power	1	1	1	1	1	0	0	1	1	1	1	0	1	1	11	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.





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

# Table 9.6-17. Analysis of Mitigation Actions by Hazard and Category

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard





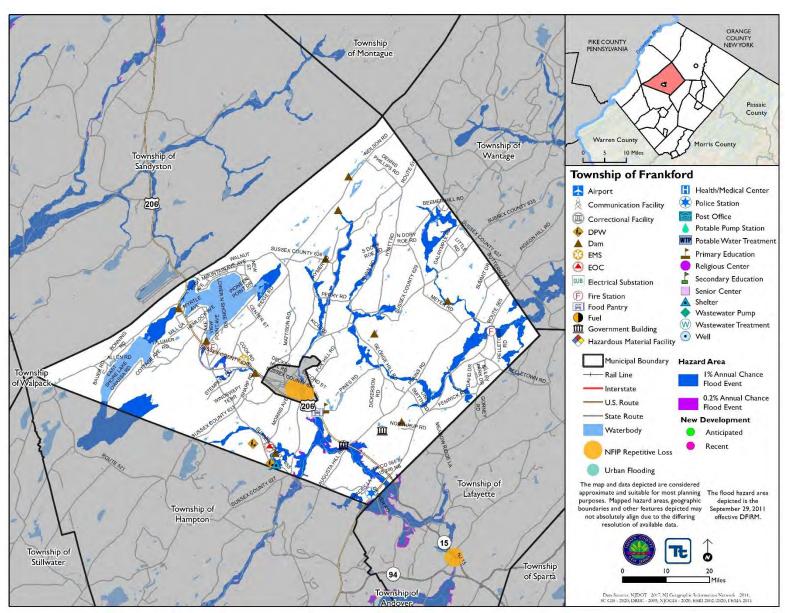


Figure 9.6-1. Township of Frankford Hazard Area Extent and Location Map 1



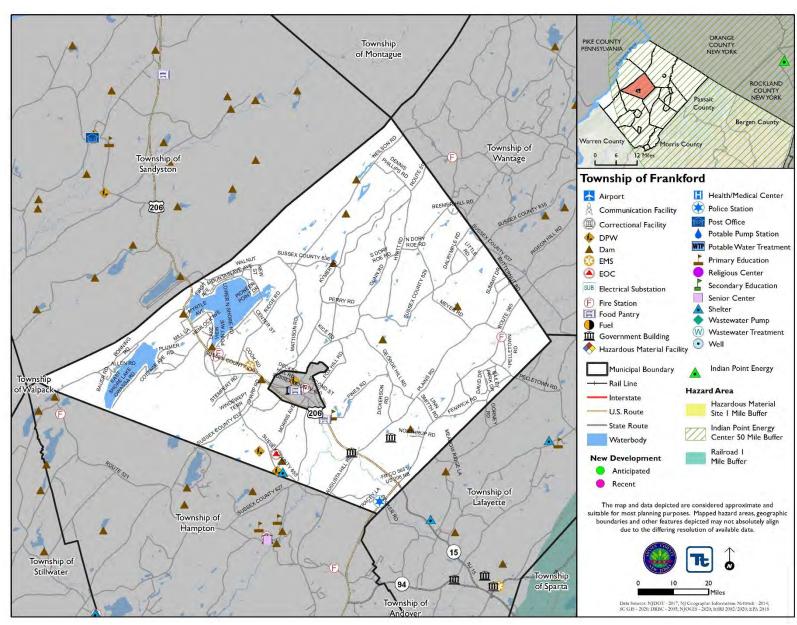


Figure 9.6-2. Township of Frankford Hazard Area Extent and Location Map 2



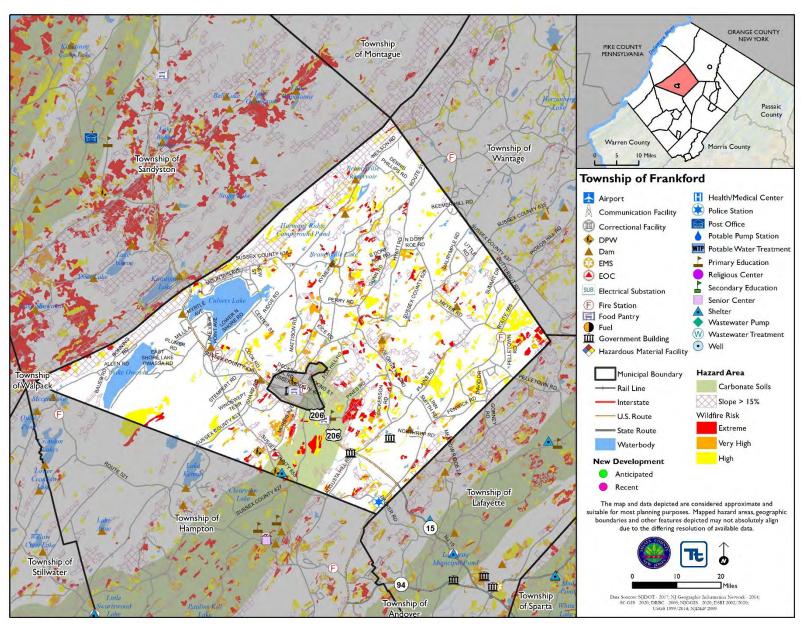


Figure 9.6-3 Township of Frankford Hazard Area Extent and Location Map 3



	А	ction W	orksheet	;							
Project Name:	Dam Inspection and	Outreac	h								
Project Number:	2021-Frankford-001										
	Ri	sk / Vul	nerabilit	у							
Hazard(s) of Concern:	Dam Failure, Flood H Winter Weather	Iurrican	e/Tropica	l Storm, Nor'Easter, S	Severe Weather Severe						
Description of the Problem:	recreational uses, an dams needs to be ass	here are a number of dams in Frankford that are located in flood zones, provide ecreational uses, and downstream flood protection. The structural conditions of these ams needs to be assessed for safety, with findings reported to the Township.									
Action or Project Intended for Implementation											
Description of the Solution:	structural assessmer Engineer will work v	The Township will complete outreach and work with dam owners to ensure that structural assessments are completed. Where repairs are necessary, the Township Engineer will work with the property owner to design repairs and the Township will assist in identification of funding support where necessary.									
Is this project related to a C Lifeline?	Critical Facility or	itical Facility or Yes 🛛 No 🗆									
Level of Protection:	500-year flood	500-year flood     Estimated Benefits       (losses avoided):									
Useful Life:	50 years		Goals M	let:	3, 5, 6						
Estimated Cost:	TBD		Mitigat	on Action Type:	Structure and Infrastructure Project, Local Plans and Regulations						
	Plan	for Imp	lementa								
Prioritization:	High			Timeframe for entation:	Within 3 years						
Estimated Time Required for Project Implementation:	2 years		Potenti Sources	al Funding ::	HMGP, PDM, FMA						
Responsible Organization:	Township OEM/Administratior NJDEP; Township Pr owners	ivate	in Impl	isms to be Used ementation if any:	Hazard Mitigation Planning						
	Three Alternatives	s Consid			Frahatian						
	Action No Action		Es	timated Cost \$0	<b>Evaluation</b> Current problem continues						
Alternatives:	Rely on private own address		\$0		Private owners may not be properly informed or equipped						
	Buyout private da		n nlon ne	High	Costly						
Data of Status Descent	Progress Re	port (10)	r-pian ma	intenancej							
Date of Status Report:											
Report of Progress:											
Update Evaluation of the Problem and/or Solution:											





	Acti	on Worksheet							
Project Name:	Dam Inspection and Outre	Dam Inspection and Outreach							
Project Number:	2021-Frankford-001								
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate							
Life Safety	1	Project protects life from dam failure							
Property Protection	1	Project protects property from dam failure							
Cost-Effectiveness	1								
Technical	1								
Political	1	There is public support for the project							
Legal	1	The Township has the legal authority to complete the project							
Fiscal	0	The project requires funding support							
Environmental	1								
Social	1								
Administrative	1								
Multi-Hazard	1	Dam Failure, Flood Hurricane/Tropical Storm, Nor'Easter, Severe Weather Severe Winter Weather							
Timeline	0	3 years							
Agency Champion	1	Township OEM/Administration, NJDEP; Township Private owners							
Other Community Objectives	1								
Total	12								
Priority (High/Med/Low)	High								





	Action	Worksheet									
Project Name:	Blue Ridge Rescue Squad Backup Power										
Project Number:	2021-Frankford-004										
Risk / Vulnerability											
Hazard(s) of Concern:	Severe Weather, Severe Wint	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 Blue Ridge Rescue Squad located at 350 US Highway 206 Branchville, NJ 07826 lacks a backup power source. The facility is considered to be a critical facility.										
Action or Project Intended	for Implementation	r Implementation									
Description of the Solution:	power the facility. The Town purchase and installation of the facility of the	The Engineer will work with the Rescue Squad to research what size generator is needed to power the facility. The Township will then provide assistance pursuing funds and guide the purchase and installation of the selected generator and necessary electrical components to supply backup power to the Blue Ridge Rescue Squad.									
Is this project related to a	Critical Facility? Yes	No 🗌									
Level of Protection:	N/A	Estimated Benefits (losses avoided):		Ensures continuity of operations of Rescue Squad							
Useful Life:	20 years	Goals Met:		1, 3							
Estimated Cost:	\$50,000	Structure and Infrastructure									
Plan for Implementation				<b>2</b>							
Prioritization:	High	Desired Timeframe for Implementation:		Within 5 years							
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sour	ces:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget							
Responsible Organization:	Engineer, Public Works	Local Planning Mechan to be Used in Implementation if any:		Hazard Mitigation, Emergency Management							
Three Alternatives Conside	ered (including No Action)	in promonauton n'any i									
	Action	Estimated Cost		Evaluation							
	No Action	\$0		Problem continues.							
Alternatives:	Install solar panels	\$100,000	amo	eather dependent; need large ount of space for installation; xpensive if repairs needed							
	Install wind turbine \$100,000 Weather dependent; poses a threat to wildlife; expensive repairs if needed										
Progress Report (for plan	Progress Report (for plan maintenance)										
Date of Status Report:											
Report of Progress:											
Update Evaluation of the Problem and/or Solution:											





	Action Worksheet										
Project Name:	Blue Ridge Rescue Squad	Backup Power									
Project Number:	2021-Frankford-004										
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate									
Life Safety	1	Project will protect critical services of Rescue Squad building									
Property Protection	1	Project will protect building from power loss.									
Cost-Effectiveness	1										
Technical	1										
Political	1										
Legal	0	The Township does not have the legal authority to complete the project without cooperation									
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	Engineer, Rescue Squad									
Other Community Objectives	1										
Total	11										
Priority (High/Med/Low)	High										





# 9.7 BOROUGH OF FRANKLIN

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

# 9.7.1 Hazard Mitigation Planning Team

The Borough of Franklin 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).

Primary Poi	nt of Contact	Alternate Point of Contact					
Name / Title: Jim Williams,	OEM Coordinator	Name / Title: Brian VanDenBroek, DPW Supervisor					
Address: 46 Main Street, Fra	/	Address: 46 Main Street, Franklin, NJ 07416					
Phone Number: (973) 600-9		Phone Number: (862) 268-7788					
Email: lauranjenna@gmail.c	om	Email: bvandenbroek@franklinborough.org					
NFIP Floodplain Adminis	trator						
Name / Title: Deborah Bona	nno, Administrator						
Address: 46 Main Street, Fra	nklin, NJ 07416						
Phone Number: (973) 827-92							
Email: dbonanno@franklinb	orough.org						
Name	Title	Method of Participation					
Jim Williams	OEM Coordinator	Primary point of contact, reviewed annex*					
Brian VanDenBroek	DPW Supervisor	Alternate point of contact, reviewed annex*					
Deborah Bonanno	Administrator	NFIP floodplain administrator; provided data and information to update the annex, reviewed annex*					
John M. Sowden	Mayor	Reviewed annex*					
Dennis Kennan	Engineer	Reviewed annex*					
Ken Nelson Planner		Reviewed annex*					
Gregory Cuglinari	Police Chief	Reviewed annex*					
Khyle Conklin	Fire Chief	Reviewed annex*					

# Table 9.7-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B

# 9.7.2 Jurisdiction Profile

Franklin Borough was incorporated in 1913 and is known as the "Fluorescent Mineral Capital of the World." The Borough has a rich mining history and was widely recognized for its rich ore body containing more than 150 minerals. The Borough is located in eastern Sussex County and bordered to the north by the Borough of Hamburg, to the west by Hardyston Township, to the south by the Borough of Ogdensburg, and to the east by





the Township of Hardyston. The Borough is also located within the New Jersey Highlands Region. The Wallkill River, Franklin Pond Creek and Wildcat Branch flow through the Borough.

According to the U.S. Census, the 2010 population for the Borough of Franklin was 5,045. The estimated 2018 population was 4,807, a 4.7 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 6.0 percent of the population is 5 years of age or younger and 13.6 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.

# 9.7.3 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 9.6-2 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.

Type of Development	2015		20	)16	2(	2017 20		18	20	19		
Numbe	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	1	0	1	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	(	vpe of opment	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development			
R	ecent Ma	jor Develo	opment an	nd Infrastr	ucture fr	om 2015 t	o Present					
Walsh Road	Residen	tial	5 units		Walsh F	Road	None		Under Construction			
Known or	Anticipa	ted Major	Develop	ment and	Infrastru	cture in th	e Next Fi	ve (5) Yea	rs			
JCM	*	Apartment		300		Munsonhurst Road		Wetlands		from te		

# Table 9.7-2. Recent and Expected Future Development

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

# 9.7.4 Capability Assessment

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

		Authority that		been integra	ts of the HMP Ited into your Iances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
Comment: State mandated on local level under NJA Adopted 9/3/2019 This code follows State Uniform Constru		0	<i>ı.)</i> .	Edition, 2018, NJ	IAC 5:24-3.14
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<ul> <li>State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and m.</li> <li>The Zoning Officer is responsible for this</li> </ul>	to have current zo aster plan.	oning and other land de	velopment ordin	ances after the pl	lanning board
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance r the filing of such plats with the county re condition for the issuance of a permit fo or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this.	equire approval of ecording officer an r any development exempt from such s the planning boar of this act . Dictate ounty planning boar and for the approva section.	subdivision plats by re ad approval of site plans , except that subdivision ite plan review and app d whenever the board o ed by the Municipal Lan ard shall provide for th al of those subdivisions	solution of the p s by resolution o n or individual l proval; provided f adjustment has nd Use Law. NJ ne review of all s affecting county	lanning board as f the planning bo ot applications fo that the resolutios jurisdiction over Statute 40:27-6.2 ubdivisions of lan road or drainag	a condition for ard as a r detached one on of the board r a subdivision 2 - the board of nd within the

# Table 9.7-3. Planning, Legal and Regulatory Capability

• The Zoning Officer is responsible for this ordinance in compliance with Chapter 161 – Land Development.



		Authority that		been integra	ts of the HMP ated into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Stormwater Management	Yes	Local	Yes	Yes	-
Comment: <ul> <li>See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8</li> <li>The Town Engineer is responsible for this ordinance in compliance with Chapter 161, Article 9 – Land Development, Stormwater and Flooding Controls.</li> </ul>					
Post-Disaster Recovery	No	-	No	-	-
Comment:	•				
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-
Comment: N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Con improvements, fees for services and amenities, the and police, as well as any hazards, risks or nuisance Growth Management	nmission. The POS type of title and ow	S provides information sonership interest being of	such as estimated	d completion dat	es for
Comment: • State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make	lineation of Growt	h Areas and Environs;	Use of the endor	sed plans in the	
Site Plan Review	Yes	Local	nes – If municipality has a Planning Board	Yes	-
<ul> <li>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.</li> </ul>					
Environmental Protection	Yes	Local	No	Yes	-
Comment: Chapter 168 Littering Chapter 188 Nuclear Free Zone Chapter 320 Solid Waste	1				
Flood Damage Prevention	Yes	State & Local	Yes	Yes	2021- Franklin-005
<ul> <li>Comment:         <ul> <li>The NJ State Law Flood Area Control A federal acts to support minimization of J floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016.</li> <li>Flood Damage Prevention, Chapter 128 Administrator serves as the Floodplain.</li> <li>It is the purpose of this chapter to promudue to flood conditions in specific areas o A. Protect human life and he</li> </ul> </li> </ul>	lood losses. They lity must be review ce. Regulations for 8 of the municipal d Administrator. ote the public heal by provisions desi	do not require local add ed for compliance with r the Flood Control Haz code is administered by th, safety, and general v	option but as enj these regulation cards Act were a the Floodplain .	forced by the NJI is. In addition, p dopted in 2007 a Administrator. Th	P) are state and DEP, the articipation in nd amended he Borough



		Authority that		been integra	s of the HMP ted into your ances/plans?
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
(Yes/No)       Local)       Mandated?       comments.       applicable.         •       B. Minimize expenditure of public money for costly flood-control projects;       •       •       applicable.         •       B. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;       •       •       D. Minimize prolonged business interruptions;       •					d sewer lines, flood hazard so
Wellhead Protection	No	-	No	-	-
<b>Comment:</b> There are three municipal wells in the E water supply.	Borough. A wellhea	nd protection ordinance	may be conside	red to protect the	Borough's
Emergency Management	Yes	Local	No	No	-
Comment: Chapter 34 Fire Department Chapter 60 Police Department Chapter 124 Fire Prevention					
Climate Change	No	-	No	-	-
Comment:					
Disaster Recovery Ordinance	No	-	No	-	-
Comment:					
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:					
Other:	No	-	No	-	-
Comment:					
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
<ul> <li>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.</li> </ul>					
Capital Improvement Plan	Yes	Local	No	No	-
Comment: The Borough Council is responsible for	this plan.				
Disaster Debris Management Plan	No	-	No	-	2021- Franklin-006
Comment: Goes to 75 Corkhill Road Facility (DPV	V)	1			1
Floodplain or Watershed Plan					





		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment:					
Stormwater Management Plan	No	-	Yes	-	-
<ul> <li>The Stormwater Management rules (N.J. the required components of regional and design and performance standards for n include groundwater recharge, runoff qu consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge, of major development to be located with without prior authorization from the Dep</li> </ul>	I municipal stormv ew (proposed) dev uantity controls, au tormwater manag of stormwater pip stormwater runoj in or to discharge	water management plan velopment. The design a nd runoff quality contro ement techniques includ es, preserving natural d ff quantity control, storr runoff from the major d	s and establish t nd performance ols. The rules emp ding minimizing drainage feature, nwater runoff qu development into	he stormwater mu standards for new phasize, as a prin disturbance, mini s, etc. The rules a vality control, and a 300-foot ripar	anagement w development nary imizing clso set forth l the prohibition
Stormwater Pollution Prevention Plan	Yes	State & Local	Yes	-	-
or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, wil management plan and implementing ord	ese sources. The Si dlife feeding, prop linance(s); requiri	tatewide Basic Required er waste disposal, etc.)	nents include me ; the developmer	easures such as: t it of a municipal .	he adoption of stormwater
<ul> <li>basin cleaning); implementing solids an education component.</li> <li>Franklin is a Tier B community.</li> </ul>	d floatables contro				
education component. • Franklin is a Tier B community.	d floatables contro No				
education component. <ul> <li>Franklin is a Tier B community.</li> </ul> Urban Water Management Plan		ol; locating discharge p	oints and stencil	ing catch basins;	
education component. Franklin is a Tier B community. Urban Water Management Plan Comment:		ol; locating discharge p	oints and stencil	ing catch basins;	
education component. • Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan	No	ol; locating discharge p	oints and stencil	ing catch basins;	
education component. Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan Comment:	No	ol; locating discharge p	oints and stencil	ing catch basins;	
education component. • Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan	No No Yes	l; locating discharge p - -	oints and stencil No No	ing catch basins; - -	
education component. Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: In-House Comm. is responsible for this J Shoreline Management Plan	No No Yes	l; locating discharge p - -	oints and stencil No No	ing catch basins; - -	
education component. Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: In-House Comm. is responsible for this	No No Yes plan. J.S.A. 13:19) or C enlargement of but	- - Local - CAFRA regulates almos ildings or structures, an	No No No No No No t all developmen d excavation, gr	- - No - t along the coast ading, shore prot	and a public for activities ection
education component. Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: In-House Comm. is responsible for this p Shoreline Management Plan Comment: NJ Coastal Area Facility Review Act (N. including construction, relocation, and e structures, and site preparation. This lat Community Wildfire Protection Plan	No No Yes plan. J.S.A. 13:19) or C enlargement of bui w is implemented	- - Local - CAFRA regulates almos ildings or structures, an	No No No No No t all developmen d excavation, gr one managemen	- - No - t along the coast ading, shore prot	and a public - - - for activities ection 7:7E-1 et seq.
education component. Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: In-House Comm. is responsible for this Shoreline Management Plan Comment: NJ Coastal Area Facility Review Act (N. including construction, relocation, and e structures, and site preparation. This la Community Wildfire Protection Plan Comment:	No No Yes plan. J.S.A. 13:19) or C enlargement of bui w is implemented	- - Local - CAFRA regulates almos ildings or structures, an	No No No No No t all developmen d excavation, gr one managemen	- - No - t along the coast ading, shore prot	and a public - - - for activities ection 7:7E-1 et seq.
education component. Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: In-House Comm. is responsible for this Shoreline Management Plan Comment: NJ Coastal Area Facility Review Act (N. including construction, relocation, and e structures, and site preparation. This la Community Wildfire Protection Plan Comment: Community Forest Management Plan Comment:	No No Yes plan. J.S.A. 13:19) or C enlargement of but w is implemented No No	I; locating discharge p - - Local - CAFRA regulates almos idings or structures, an through NJ's Coastal Z -	oints and stencil No No No No t all developmen d excavation, gr one managemen No No	ing catch basins; - No t along the coast ading, shore prot t Rules N.J.A.C. 7 -	and a public - - - for activities ection 7:7E-1 et seq.
education component. Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: In-House Comm. is responsible for this f Shoreline Management Plan Comment: NJ Coastal Area Facility Review Act (N. including construction, relocation, and e structures, and site preparation. This la Community Wildfire Protection Plan Comment: Comment: Comment: Community Forest Management Plan Comment: Transportation Plan	No No Yes plan. J.S.A. 13:19) or C enlargement of but w is implemented No	I; locating discharge p - - Local - CAFRA regulates almos idings or structures, an through NJ's Coastal Z -	oints and stencil No No No No t all developmen d excavation, gr one managemen No	ing catch basins; - No t along the coast ading, shore prot t Rules N.J.A.C. 7 -	and a public - - - for activities ection 7:7E-1 et seq.
education component. Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: In-House Comm. is responsible for this Shoreline Management Plan Comment: NJ Coastal Area Facility Review Act (N. including construction, relocation, and e structures, and site preparation. This la Community Wildfire Protection Plan Comment: Community Forest Management Plan Comment: Transportation Plan Comment:	No No Yes plan. No J.S.A. 13:19) or C nlargement of bui w is implemented No No No No	I; locating discharge p - - Local - CAFRA regulates almos idings or structures, an through NJ's Coastal Z -	oints and stencil No	ing catch basins; - No t along the coast ading, shore prot t Rules N.J.A.C. 7 -	and a public - - - for activities ection 7:7E-1 et seq.
education component. Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: In-House Comm. is responsible for this p Shoreline Management Plan Comment: NJ Coastal Area Facility Review Act (N. including construction, relocation, and e structures, and site preparation. This la Community Wildfire Protection Plan Comment: Comment: Comment: Comment: Transportation Plan Comment: Agriculture Plan	No No Yes plan. J.S.A. 13:19) or C enlargement of but w is implemented No No	I; locating discharge p - - Local - CAFRA regulates almos idings or structures, an through NJ's Coastal Z -	oints and stencil No No No No t all developmen d excavation, gr one managemen No No	ing catch basins; - No t along the coast ading, shore prot t Rules N.J.A.C. 7 -	and a public - - - for activities ection 7:7E-1 et seq.
education component. Franklin is a Tier B community. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: In-House Comm. is responsible for this Shoreline Management Plan Comment: NJ Coastal Area Facility Review Act (N. including construction, relocation, and e structures, and site preparation. This la Community Wildfire Protection Plan Comment: Community Forest Management Plan Comment: Transportation Plan Comment:	No No Yes plan. No J.S.A. 13:19) or C nlargement of bui w is implemented No No No No	l; locating discharge p - Local - CAFRA regulates almos idings or structures, an through NJ's Coastal Z	oints and stencil No	ing catch basins; No - t along the coast ading, shore prot t Rules N.J.A.C. 7	and a public - - - for activities ection 7:7E-1 et seq.





		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Tourism Plan	No	-	No	-	-	
Comment: A Tourism Plan may be considered for	the future.					
Business Development Plan	No	-	No	-	-	
Comment:						
Other	No	-	No	-	-	
Comment:						
<b>Response/Recovery Planning</b>						
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-	
<ul> <li>Comment:</li> <li>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.</li> <li>The Office of Emergency Management is responsible for this plan.</li> </ul>					he State	
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-	
Comment:						
Post-Disaster Recovery Plan	No	-	No	-	-	
Comment:	Comment:					
Continuity of Operations Plan	No	-	No	-	-	
Comment:						
Public Health Plan	Yes	County	No	-	-	
Comment:						
Other	No	-	No	-	-	
Comment:		1		1		

# Table 9.7-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Construction Department
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.	Yes The Borough has a buildable land inventory as part of its Housing Element.

#### ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

#### Table 9.7-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		





Staff/Personnel Resource	Available?	Department/Agency/Position
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	-
Environmental Board / Commission	No	-
Open Space Board / Committee	Yes	Part of the Planning Board
Economic Development Commission / Committee	Yes	Ad-hoc, now formalized
Warning Systems / Services (reverse 911, outdoor warning signals)	No	The Borough is seeking to implement a warning system.
Maintenance program to reduce risk	Yes	Franklin Borough Board of Public Works
Mutual aid agreements	Yes	Surrounding communities with written and verbal
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Contractors (annually)
Engineers or professionals trained in building or infrastructure construction practices	Yes	Contractors (annually)
Planners or engineers with an understanding of natural hazards	Yes	Contractors (annually)
Staff with training in benefit/cost analysis	No	-
Staff with training in green infrastructure	Yes	French & Parrello Denis Keenan
Staff with education/knowledge/training in low impact development	Yes	French & Parrello Denis Keenan
Surveyor	Yes	Contractors (annually)
Stormwater engineer	Yes	French & Parrello Denis Keenan
Personnel skilled or trained in GIS applications	Yes	Contractors (annually)
Local or state water quality professional	Yes	Brian/Van Cleef Associates
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	OEM Coordinator
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	Yes	Borough Staff
Resilience Officer	No	-
Other:	No	-

# FISCAL CAPABILITY

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

# Table 9.7-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes
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	Yes
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No





Financial Resource	Accessible or Eligible to Use?
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No
Other	No

# EDUCATION AND OUTREACH CAPABILITY

The table below summarizes the education and outreach resources available to the Borough of Franklin.

# Table 9.7-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes- Police Department
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	Yes The Borough posts information about natural hazard events as well as COVID-19.
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes- looking to expand
Do you have any citizen boards or commissions that address issues related to hazard mitigation? -If yes, briefly describe.	Yes-OEM Committee
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, briefly describe.	Yes- discussions with Borough Council

# **COMMUNITY CLASSIFICATIONS**

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

# Table 9.7-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (Fire ISO Protection Class)	No	-	-
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	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.



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

# Table 9.7-9. Adaptive Capacity

Notes:

Strong = Capacity exists and is in use; Moderate = Capacity may exist, but is not used or could use some improvement;

Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

# NATIONAL FLOOD INSURANCE PROGRAM

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

# Table 9.7-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Administrator
Who is your floodplain administrator? (name, department/position)	Deborah Bonanno, Administrator
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	June 28, 2011
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	Unknown
When was the most recent Community Assistance Visit or Community Assistance Contact?	December 1, 1994
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 indicated that lack of training, staff and funding are barriers to running an effective floodplain management program in the Borough.





Response
No
11 policies
11 claims \$75,888 in payments
No
No

\*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-Franklin-005)
- **Disaster Debris Management Plan:** The Borough will develop a Disaster Debris Management Plan. (2021-Franklin-006)
- Wellhead Protection Ordinance: The Borough will consider wellhead protection ordinances to protect its municipal water supply.

# 9.7.5 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 Franklin'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 9.6-11 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.

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 <sup>rd</sup> and 24th.	The Borough experienced excessive overtime due to snow removal operations, entailing 180.5 overtime hours across 10 full-time employees. The Borough also experienced excessive fuel costs and salt expenses associated with addressing the storm.
January 20, 2020 and continuing	EM-3451, DR- 4488: COVID- 19 Pandemic	Yes	The coronavirus pandemic resulted in the need for	The Borough was subject to municipal office closures and

# Table 9.7-11. 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
			shutdowns and social distancing and mask requirements.	social distancing and masking requirements.

Source: FEMA 2020, NOAA NCEI 2020

# 9.7.6 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 Franklin 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 Franklin 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 Franklin has significant exposure.

# **REPETITIVE FLOOD LOSSES**

The following summarizes the repetitive and severe repetitive flood losses in the Borough of Franklin.

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

Source: FEMA 2019

# **CRITICAL FACILITIES**

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

# Table 9.7-12. Critical Facilities and Lifelines Flood Exposure

		Exposure		
Name	Туре	1% Event	0.2% Event	
22-227 Franklin Pond Dam	Dam	Х	Х	

Source: Sussex County Planning Partnership 2020

#### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- During heavy rains, Franklin Pond crests over beach and causes erosion. It is filled in sand during storm events.
- On Rutherford Avenue, the drainage creek floods out because it cannot accept water fast enough
- Route 23- drainage system not designed to be large enough for deluges.





# 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 Franklin 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 Franklin. The Borough of Franklin 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 Franklin agreed with the calculated hazard rankings.

Dam Failure	Disease Outbreal	k Drought	Earthqu	ake	Flood		Geologic		
Low	Medium	Medium	Low		Medium		Low		
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter	Severe Weather				Severe Winter Weather	Wildfire
Medium	High	Medium	High	Hi	gh	High	Low		

# Table 9.7-13. Borough of Franklin Hazard Ranking

# 9.7.7 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 9.6-15 and Table 9.6-16 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 9.7-14. Status of Previous HMP Mitigation Actions

2016 Action Number Action Description		Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	the 2021 HMP odate? Enter 2021 HMP Action #
Franklin Boro-1 (revised old #3)	Conduct a study on the redevelopment of Rutherford Avenue. This would allow traffic heading north and south when Route 23 is closed due to an emergency. Once study is complete, identify mitigation actions to complete this project.	Borough Engineer with support from NJDOT	No Progress	





			Status (In Progress, No	Include in the 2021 HMP Update?			
2016 Action Number Action Description		Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
Franklin Boro-2 (revised old #2)	<ul> <li>Ensure continuity of operations at critical facilities. Purchase and install a generators for critical facilities in Borough: <ul> <li>First Aid Squad</li> <li>Franklin Elementary School</li> <li>Borough Hall</li> <li>Borough's Board of Public Works Water Division facility</li> </ul> </li> <li>Borough's Board of Public Works Road Division facility</li> </ul>	Borough OEM	In Progress	х	2021- Franklin-002		
Franklin Boro-3 (old #6)	Provide an all-hazards public education outreach program on mitigation related issues through social media and the Borough website.	Borough OEM	Ongoing Capability / In Progress	х	2021- Franklin-001		
Franklin Boro-4 (new)	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood- proofing) or acquisition/relocation to protect structures from future damage, with repetitive loss and severe repetitive loss properties as a priority when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option. Phase 2: Work with the property owners to implement selected action based on available funding and local match availability.	Engineering via NFIP FPA with NJOEM, FEMA support	Ongoing Capability				
Franklin Boro-5 (new)	Identify and establish a reverse 911 system for the Borough to use to alert residents during emergencies. Once set up, create an outreach program to all the residents of the Borough on how to sign up and use the system.	Borough OEM	In Progress	x	2021- Franklin-001		
Franklin- 6 (new)	Conduct a study on the flooding of the Wallkill River and its impacts on the homes along Newton Avenue.	Engineering with support from NJDEP and Fish and Wildlife	No Progress	Х			
Franklin- 7 (new)	Purchase and install a 3,000 gallon bi-fuel tank at the DPW facility on Corkhill Road. The tank would hold 2,000 gallons of gasoline and 1,000 gallons	Borough OEM and DPW	No Progress				





		Status (In Progress, No		the 2021 HMP odate?
	D	Progress, Ongoing		Enter 2021
2016 Action Number Action Description	Responsible Party	Capability, or Completed)	Check if Yes	HMP Action #
of diesel fuel. The fuel will be used for municipal vehicles.				

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

 Backup generators have been installed at water pump stations and lift stations. The fire department and police department have generators, though the police department generator is undersized.

# **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Borough of Franklin 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 Franklin 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 9.6-15 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Franklin 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 9.6-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





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Table 9.7-15. 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- Franklin-	Outreach	<b>Problem:</b> The Borough has identified a need to better communicate hazard and disaster information to the public using the internet, social media, and traditional venues. Currently the Borough does not have as much direct control on the website.	Existing	All	1, 3,	Borough Administrat or; Website vendor; Emergency	HMGP; County; Borough	Enhanc ed underst anding and	\$10,0	Wi thi n	Hig	EAP	PR
001	Program	<b>Solution:</b> The Borough proposes to develop and implement an outreach program that includes targeted outreach such as Reverse 9-1-1/textmygov, website and social media integration upgrades, and ADA compliance.		Hazards	4, 6	Manageme nt; Sussex County Sheriff	Appropriati ons	awaren ess of hazard s	00	on ye ar	h		
2021- Franklin- 002	Generators for Municipal Facilities	<ul> <li>Problem: The Borough does not have generators for all municipal facilities. There are no standby generators available at the Rescue Squad, Franklin Elementary School, and Borough Hall. The Police Department's current generator is undersized. These facilities are vulnerable to power outages that would disrupt the operation of municipal functions during a hazard event. The following generator sizes are identified: <ul> <li>Police Dept 50 KW Diesel or Propane</li> <li>Borough Hall 100KW Natural Gas</li> <li>DPW Water Utility 30KW Diesel/Propane</li> <li>DPW Road Dept 75KW Diesel or Propane</li> <li>Elementary School 500KW Natural Gas</li> <li>First Aid Squad 22KW Diesel or Propane</li> </ul> </li> <li>Solution: The Borough proposes to purchase and install generators at municipal facilities, including Rescue Squad, Elementary School, Borough Hall, and Police Department.</li> </ul>	Existing	All Hazards	1, 2, 3, 5, 6	Borough OEM; Public Works	BRIC; HMGP; Borough Appropriati ons	Contin ued operati ons of faciliti es during hazard inciden ts	High	Wi thi n thr ee ye ars	Hig h	SIP	PR





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s ) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category	
2021- Franklin-	Franklin Pond	<b>Problem</b> : During heavy rains, Franklin Pond crests over the beach and causes erosion. It has filled in with sand during storm events. FEMA has reimbursed rather than provided funding for mitigation projects, which poses a financial hardship.	N/A	Flood; Hurricanes and Tropical Storms; Nor'easter s Severe Storms	2, 4, 5	5 Engineer	HMGP, BRIC, municipal budget	Reduct ion in floodin g, silting of pond	TBD by flood study and select ed action s	Wi thi 5 ye ars	Me diu m	SIP, NSP	SP,	
	Franklin Pond Flood Study	<b>Solution:</b> The Borough will conduct a flood study to determine what can be done to reduce flooding in Franklin Pond. Possible options include dredging of the pond, diverting runoff away from the pond, etc. Once cost-effective actions are identified, the Borough will carry out the selected actions.											SP, NR	
2021- Franklin- 004	Rutherford Avenue	<b>Problem</b> : The drainage creek on Rutherford Avenue floods out because it cannot accept water fast enough. FEMA has reimbursed rather than provided funding for mitigation projects, which poses a financial hardship.	Existing	Existing	Flood; Hurricanes and Tropical Storms;	2, 4, 5	Engineer	HMGP, BRIC, Borough	Reduct ion of floodin g at Ruther	High	Wi thi n 5	Hig h	SIP	SP
001		<b>Solution:</b> The Borough Engineer will design a larger drainage creek with a greater varying capacity. The Borough will then make the necessary upgrades.		Nor'easter s Severe Storms			budget	ford Avenu e		ye ars				
2021- Franklin-	Flood Damage Prevention	<b>Problem</b> : The Borough's Flood Damage Prevention Ordinance lacks language to include the state mandated freeboard requirement.		Flood	2,5	Administrat	Borough	Meet state	Staff	Wi thi n 6	Hig	LPR	PR	
005	Ordinance Update	<b>Solution:</b> The Borough will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement.	New	1000	2, 5	ion	budget	standar ds	time	m on ths	h	LIK	IK	
		<b>Problem</b> : The Borough lacks a Disaster Debris Management Plan.						Increas						
Franklin- N	Disaster Debris Management Plan	<b>Solution:</b> The Borough will develop and adopt a Disaster Debris Management Plan. The Plan will include any necessary mutual aid discussions to supplement the Borough's capabilities.	Existing	All Hazards	5, 6	OEM, Administrat ion	Borough budget	ed disaste r capabil ities	Staff time	2 ye ars	Hig h	LPR	ES	





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- Franklin-	Wallkill Creek Flood Study	<b>Problem</b> : The Wallkill Creek passes through Franklin Borough and poses a flood risk for residents throughout the community.	Existing	Flood; Hurricanes and Tropical Storms;	2, 4, 5	Public Works	Borough budget	Enhanc ed underst anding	Low	Wi thi n fiv e	Me diu	LPR	PR
007		<b>Solution:</b> The Borough will conduct a study on the flooding of the Wallkill River and its impacts on the homes along Newton Avenue.		Nor'easter s Severe Storms			6	of flood issues		e ye ars	m		

Building Resilient Infrastructure and Communities

Flood Mitigation Assistance Grant Program

Hazard Mitigation Grant Program

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

#### 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.

Potential FEMA HMA Funding Sources:

- 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.

BRIC

FMA

HMGP

Program

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.

#### Timeline:

The time required for completion of the project upon implementation

#### <u>Cost:</u>

The estimated cost for implementation.

#### Benefits:

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



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- Franklin- 001	Outreach Program	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Franklin- 002	Generators for Municipal Facilities	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Franklin- 003	Franklin Pond	0	1	0	1	1	0	0	1	1	1	1	0	1	1	9	High
2021- Franklin- 004	Rutherford Avenue	0	1	1	1	1	1	0	1	1	1	1	0	1	1	11	High
2021- Franklin- 005	Flood Damage Prevention Ordinance Update	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2021- Franklin- 006	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021- Franklin- 007	Wallkill Creek Flood Study	1	1	0	0	0	1	1	0	0	0	1	0	1	1	7	Medium

Table 9.7-16. Summary of Evaluation and Action Priorities

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.





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

Table 9.7-17	Analysis of Mitigation Actions by Hazard and Category
--------------	---

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

high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



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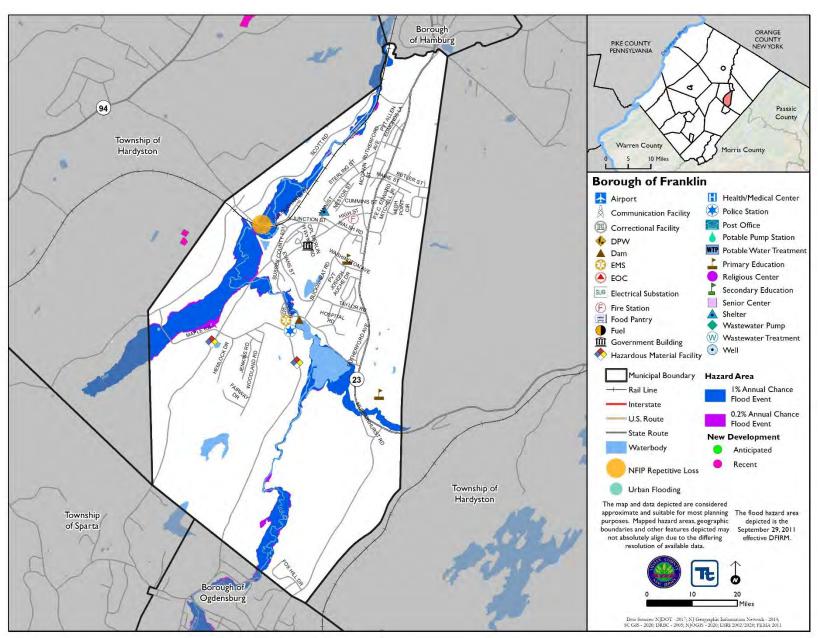


Figure 9.7-1. Borough of Franklin Hazard Area Extent and Location Map 1



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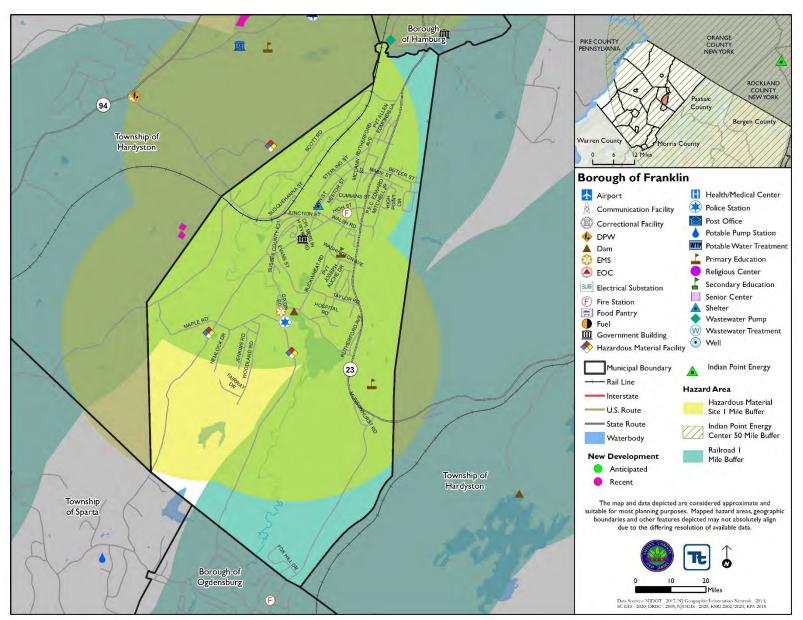


Figure 9.7-2. Borough of Franklin Hazard Area Extent and Location Map 2



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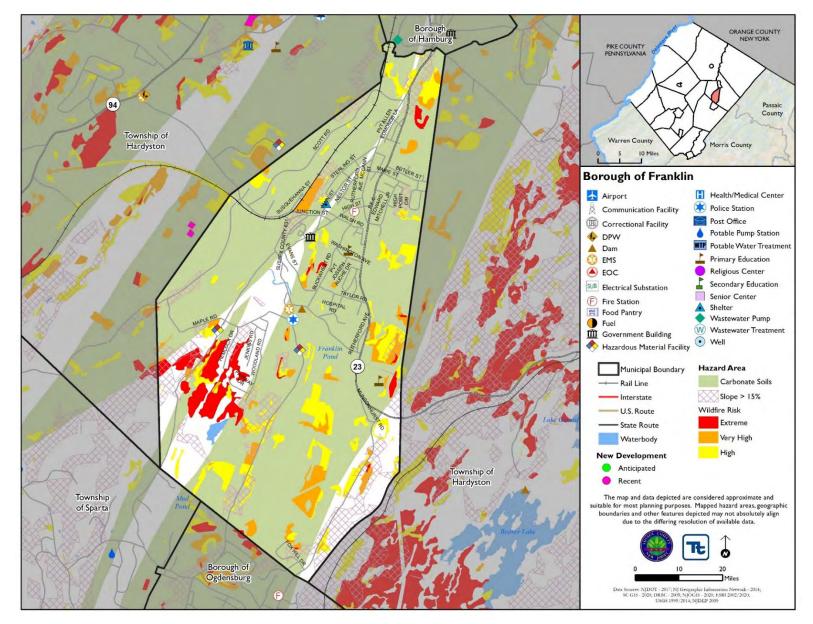


Figure 9.7-3 Borough of Franklin Hazard Area Extent and Location Map 3



	A	ction W	orkshee	et			
Project Name:	Outreach Program	Outreach Program					
Project Number:	2021-Franklin-001						
	Ri	isk / Vul	nerabili	ty			
Hazard(s) of Concern:	All Hazards						
Description of the Problem:		nternet, so	ocial med	ia, and traditional venu	rd and disaster information to les. Currently the Borough does		
	Action or Proje	ct Intend	led for I	mplementation			
Description of the Solution:		erse 9-1-1			program that includes targeted media integration upgrades,		
Is this project related to a	a Critical Facility?	Yes		No 🖂			
Level of Protection:	N/A			ited Benefits avoided):	Enhanced understanding and awareness of hazards		
Useful Life:	Indefinite		Goals	Met:	1, 3, 4, 6		
Estimated Cost:	\$10,000		Mitigation Action Type:		Education and Awareness Programs		
		for Imp					
Prioritization:	High		Desired Timeframe for Implementation:		Within one year		
Estimated Time Required for Project Implementation:	Six months		Potent Source	ial Funding s:	HMGP; County; Borough Appropriations		
Responsible Organization:	Borough Administrate Website vendor; Emer Management; Sussex Sheriff	rgency County	Mecha in Imp	Planning nisms to be Used lementation if any:	Hazard Mitigation		
	Three Alternatives	s Consid					
	Action		E	Stimated Cost	Evaluation		
Alternatives:	No Action Outsource			\$0 Medium	Current problem continues Less control over messaging		
	Municipal outreach p	rogram		Low	Feasible		
	Progress Re		r plan m	Hell.			
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





	Actio	on Worksheet
Project Name:	Outreach Program	
Project Number:	2021-Franklin-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Hazard awareness will save lives
Property Protection	1	Outreach will include structural mitigation
Cost-Effectiveness	1	
Technical	1	Technically feasible
Political	1	
Legal	1	
Fiscal	1	
Environmental	1	
Social	1	Project will protect social cohesion
Administrative	1	Project is administratively feasible
Multi-Hazard	1	All hazards
Timeline	1	
Agency Champion	1	Administration/OEM will champion
Other Community Objectives	1	
Total	14	
Priority (High/Med/Low)	High	



	Α	ction W	orkshee	t			
Project Name:	Generators for Munic	ipal Faci	lities				
Project Number:	2021-Franklin-002	2021-Franklin-002					
	Ri	sk / Vul	Inerabili	ty			
Hazard(s) of Concern:	All Hazards						
Description of the Problem:	Problem: The Borough does not have generators for all municipal facilities. There are no standby generators available at the Rescue Squad, Franklin Elementary School, and Borough Hall. The Police Department's current generator is undersized. These facilities are vulnerable to power outages that would disrupt the operation of municipal functions during a hazard event. The following generator sizes are identified:         •       Police Dept 50 KW Diesel or Propane         •       Borough Hall 100KW Natural Gas         •       DPW Water Utility 30KW Diesel/Propane         •       DPW Road Dept 75KW Diesel or Propane         •       Elementary School 500KW Natural Gas         •       First Aid Squad 22KW Diesel or Propane						
	Action or Project						
Description of the Solution:		The Borough proposes to purchase and install generators at municipal facilities, including Rescue Squad, Elementary School, Borough Hall, and Police Department.					
Is this project related to a	a Critical Facility?	Yes		No 🖾			
Level of Protection:	N/A			ted Benefits avoided):	Continued operations of facilities during hazard incidents		
Useful Life:	30 years		Goals N	Aet:	1, 2, 3, 5, 6		
Estimated Cost:	High-TBD		Mitigat	tion Action Type:	Structure and Infrastructure Project		
	Plan	for Imp	lementa	tion			
Prioritization:	High			d Timeframe for nentation:	Within three years		
Estimated Time Required for Project Implementation:	1 year			ial Funding	BRIC; HMGP; Borough Appropriations		
Responsible Organization:	Borough OEM; Public Works	2	Mecha	Planning nisms to be Used lementation if any:	Hazard Mitigation		
	Three Alternatives	Consid					
	Action		E	stimated Cost	Evaluation		
Alternatives:	No Action Microgrid			\$0 High	Current problem continues Too expensive		
	Targeted generators         High         Cost feasible						
	Progress Rej	port (fo	r plan m	aintenance)			
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





	Action Worksheet						
Project Name:	Generators for Municipal	Facilities					
Project Number:	2021-Franklin-002	2021-Franklin-002					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Critical facilities will protect life safety					
Property Protection	1	Project will protect critical facilities					
Cost-Effectiveness	1						
Technical	1	Generators are technically feasible					
Political	1	Generators are politically feasible					
Legal	1						
Fiscal	1						
Environmental	1						
Social	1	Critical facility protection will protect social cohesion					
Administrative	1						
Multi-Hazard	1	All Hazards					
Timeline	1						
Agency Champion	1						
Other Community Objectives	1						
Total	14						
Priority (High/Med/Low)	High						





	А	ction W	orkshee	t			
Project Name:	Franklin Pond	Franklin Pond					
Project Number:	2021-Franklin-003	2021-Franklin-003					
	Ri	sk / Vul	nerabilit	ty			
Hazard(s) of Concern:	Flood, Severe Weath	er					
Description of the Problem:	in with sand during s for mitigation projec	storm ev ts, whicł	ents. FEM 1 poses a	IA has reimbursed ra financial hardship.	d causes erosion. It has filled ther than provided funding		
	Action or Project	ct Intend	led for Iı	mplementation			
Description of the Solution:	flooding in Franklin runoff away from the will carry out the sel	Pond. Po e pond, e	ssible op tc. Once o	tions include dredgin	can be done to reduce g of the pond, diverting are identified, the Borough		
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖾			
Level of Protection:	TBD by flood study a selected actions	nd		ted Benefits avoided):	Reduction in flooding, silting of pond		
Useful Life:	TBD by flood study a selected actions	nd	Goals M	let:	2		
Estimated Cost:	TBD by flood study a selected actions	nd	Mitigation Action Type:		Structure and Infrastructure Projects, Natural Systems Protection		
	Plan	for Imp	lementa				
Prioritization:	High			d Timeframe for nentation:	Within 5 years		
Estimated Time Required for Project Implementation:	5 years			ial Funding	HMGP, BRIC, municipal budget		
Responsible Organization:	Engineer		Mechai	lanning nisms to be Used ementation if any:	Hazard mitigation planning, stormwater planning		
	Three Alternatives	Consid	ered (inc	cluding No Action)			
	Action		E	stimated Cost	Evaluation		
Alternatives:	No Action Elevate nearby road	lways		\$0 \$500,000	Current problem continues Costly and may not solve problem		
	Relocate nearby roa and properties	•		N/A	Not possible		
	Progress Re		r pla <u>n m</u> a	aintenance)			
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





	Actio	on Worksheet
Project Name:	Franklin Pond	
Project Number:	2021-Franklin-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Reduction in flooding risk
Cost-Effectiveness	0	
Technical	1	Technically feasible project
Political	1	
Legal	0	The Borough may require permitting to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	Reduces silting of pond
Social	1	Project would reduce flooding impacts.
Administrative	1	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	
Agency Champion	1	Engineer
Other Community Objectives	1	
Total	9	
Priority (High/Med/Low)	High	



	Α	ction W	orkshee	t			
Project Name:	Rutherford Avenue						
Project Number:	2021-Franklin-004	2021-Franklin-004					
	Ri	sk / Vul	nerabilit	y			
Hazard(s) of Concern:	Flood, Severe Weathe	r					
Description of the Problem:					water fast enough. FEMA has ts, which poses a financial		
	Action or Project	ct Intend	ded for Ir	nplementation			
Description of the Solution:	The Borough Enginee The Borough will the				th a greater varying capacity.		
Is this project related to a	a Critical Facility?	Yes		No 🖂			
Level of Protection:	At least a 5-year event; will be determined once project is complete		Estimated Benefits (losses avoided):		Reduction of flooding at Rutherford Avenue		
Useful Life:	30 years		Goals M	let:	2		
Estimated Cost:	High		Mitigation Action Type:		Structure and Infrastructure Project		
		for Imp	lementa	tion			
Prioritization:	High			l Timeframe for entation:	Within 5 years		
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		HMGP, BRIC, Borough budget		
Responsible Organization:	Engineer			lanning hisms to be Used ementation if any:	Hazard Mitigation		
	Three Alternatives	Consid	ered (inc	luding No Action)			
	Action		Es	stimated Cost	Evaluation		
	No Action			\$0	Current problem continues		
Alternatives:	Remove nearby road properties			Very High	Roadway cannot be removed		
	Relocate road and pro to another location	on		N/A	Not feasible		
	Progress Re	port (fo	r plan ma	intenance)			
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





	Acti	on Worksheet
Project Name:	Rutherford Avenue	
Project Number:	2021-Franklin-004	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will protect roadway from flooding, damages
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	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, Flood
Timeline	0	Within 5 years
Agency Champion	1	Engineer
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



# 9.8 TOWNSHIP OF FREDON

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

## 9.8.1 Hazard Mitigation Planning Team

The Township of Fredon 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).

Primary Point of Contact		Alternate Point of Contact			
Name / Title: Keith Festa, OEM Coordinator		Name / Title: Glenn Deitz, Third OEM Coordinator			
Address: 443 Route 94, Newton, NJ 07860		Address: 30 Anderson Hill Road, Newton, NJ 07860			
Phone Number: (516) 456		Phone Number: (973) 333-4244			
Email: firecop1534@gma	il.com	Email: gd <u>eitz@fredonnj.gov</u>			
NFIP Floodplain Admir	nistrator				
Name / Title: Keith Festa,	OEM Coordinator				
Address: 443 Route 94, N					
Phone Number: (516) 456					
Email: firecop1534@gma					
Name	Title	Method of Participation			
Keith Festa	OEM Coordinator	Primary point of contact, NFIP floodplain administrator, contributed to mitigation strategy; attended the kickoff meeting, annex training, reviewed annex*			
Glenn Deitz	OEM Coordinator	Alternate point of contact			
Suzanne Boland	Registered Municipal Clerk	Provided data and information, contributed to mitigation strategy			
Carl Lazzaro	OEM Coordinator, third	Attended the annex training and contributed to the annex development			
Deborah Prommell	Acting Municipal Clerk	Attended the kickoff meeting and annex training			
John Flora	Mayor	Reviewed annex*			
Harold Pellow	Consultant Engineer	Reviewed annex*			
Deborah Bonanno	Fiscal/CFO	Reviewed annex*			
Leigh Witty	Building Code Official	Reviewed annex*			
Tom Knutelsky	Floodplain Administrator	Reviewed annex*			
Eileen Banyra	Land Use Planner	Reviewed annex*			
John Breece	Fire Department	Reviewed annex*			

#### Table 9.8-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B





# 9.8.2 Jurisdiction Profile

The Township of Fredon was incorporated in 1904. The Township is located in southwestern Sussex County and has a total land area of 17.65 square miles. It is bordered to the north by Hampton Township, to the south by Green Township, to the east by Andover Township and Newton, and to the west by Stillwater Township and Warren County. The Pequest River, Paulins Kill, and Bear Brook all flow through the Township. In addition, numerous ponds and lakes are located throughout the Township.

According to the U.S. Census, the 2010 population for the Township of Fredon was 3,437. The estimated 2018 population was 3,214, a 6.49 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 8.0 percent of the population is 5 years of age or younger and 25 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.

## 9.8.3 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 9.7-2 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.

Type of Development	20	015	20	)16	20	017	20	)18	20	19
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	1	0	1	0	1	0	1	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 # of Units / Development Structures			(ad and/o	<b>ation</b> dress or block d lot)	На	own zard e(s)*	Stat	ption / us of opment	
<b>Recent Major Development and Infrastructure from 2015 to Present</b>										
None identified										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
			N	one anticip	ated					

## Table 9.8-2. Recent and Expected Future Development

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

## 9.8.4 Capability Assessment

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

		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Codes, Ordinances, & Requirements			-			
Building Code	Yes	State	Yes	Yes	-	
Comment: • State mandated on local level under NJA Adopted 9/3/2019 • The Building Department is responsible			200 – Construct			
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
Comment: • State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and me • The Zoning Department is responsible for	to have current zo aster plan.	oning and other land de	velopment ordin			
Subdivisions	Yes	Local & Federal	Yes – if municipality has a Land Use Board	Yes	-	
Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance r the filing of such plats with the county re condition for the issuance of a permit fo. or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this s	equire approval of cording officer an r any development xempt from such s the planning boar of this act . Dictato ounty planning boa nd for the approva	subdivision plats by re d approval of site plans , except that subdivision ite plan review and app d whenever the board o ed by the Municipal Lai ard shall provide for th	solution of the p s by resolution o n or individual l proval; provided f adjustment has nd Use Law. NJ ne review of all s	lanning board as f the planning bo ot applications fo that the resolutio jurisdiction over Statute 40:27-6.2 ubdivisions of lar	a condition for ard as a r detached one on of the board a subdivision t the board of ad within the	



		Authority that		been integra	ts of the HMP ated into your ances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
<ul> <li>The Planning and Zoning Department is responsible for this ordinance in compliance with Chapter 550- Zoning and Chapter 470- Subdivision of Land.</li> <li>Fredon Township Ordinance 2021-03: Amending Chapter 457 Stormwater Management February 2021</li> </ul>						
Stormwater Management	Yes	Local & Federal	Yes	Yes	-	
Comment: See Title 7 of the NJ Administrative Coa The Planning and Zoning Department is Fredon Township Ordinance 2021-03: A	responsible for th		-		tter Control.	
Post-Disaster Recovery	No	-	No	-	-	
Comment:						
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-	
<b>Comment:</b> N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Con improvements, fees for services and amenities, the and police, as well as any hazards, risks or nuisance	nmission. The POS type of title and ow	S provides information s mership interest being o	such as estimated	d completion date	es for	
Growth Management	Yes	Local	Land Use Board	Yes	-	
of state environmental regulations makes the Plan Endorsement process a growth management strategy.         The Planning and Zoning Department is responsible for these ordinances.         Site Plan Review       Yes       Local       Land Use Board       Yes       -         Comment:       •       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 a boundary, or proposed facilities or publ given to the county planning board at le a copy of the official notice of the public The Planning and Zoning Department is Fredon Township Ordinance 2021-03; A	ic lands shown on ast 10 days prior t hearing together responsible for th	the county master plan to the public hearing the with a copy of the prope ese requirements in con	or official coun reon by persona osed ordinance. npliance with C	ty map. Such no il delivery or by c hapter 424 – Site	tice shall be certified mail of	
Environmental Protection	Yes	State	Yes	No	-	
<ul> <li>Comment:         <ul> <li>Land Use Board applications require NJDEP Environmental Impact Statement if required.</li> <li>The Zoning Ordinance (Chapter 550) includes the following purposes related to environmental protection:                 <ul></ul></li></ul></li></ul>						
Flood Damage Prevention Yes Local Yes -						
Flood Damage Prevention       Yes       Local       Yes       Yes       -         Comment:         • 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.         • This ordinance follows Chapter 270- Flood Control, last amended February 2021						



		Authority that		been integra	s of the HMP ted into your ances/plans?
	<b>Do you have</b> <b>this?</b> (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>It is the purpose of this chapter to promodue to flood conditions in specific areas         <ul> <li>A. To protect human life and</li> <li>B. To minimize expenditure of</li> <li>C. To minimize the need for to of the general public;</li> <li>D. To minimize prolonged but</li> <li>E. To minimize damage to pullines, streets, bridges located</li> <li>F. To help maintain a stable so as to minimize fluture flood</li> <li>G. To ensure that potential b</li> <li>H. To ensure that those who</li> </ul> </li> </ul>	by provisions desi health; f public money for escue and relief ej isiness interruption blic facilities and in areas of specia tax base by provid l blight areas; uyers are notified occupy the areas of	gned: costly flood control pr forts associated with flo utilities such as water a l flood hazard; ing for the second use a that property is in an ar	ojects; ooding and gene nd gas mains, e nd development rea of special flo issume responsit	rally undertaken lectric, telephone of areas of speci od hazard; and	at the expense and sewer al flood hazard
Wellhead Protection	No	-	No	-	-
Comment: Fredon Township has no public water sy Emergency Management Comment: • Chapter 85, Volunteer Fire Company and	Yes	Local	No	Yes	-
Chapter 262, Fire Company Climate Change	No		No		
0	INO	-	INO	-	-
Comment:	N		N		
Disaster Recovery Ordinance	No	-	No	-	-
Comment:					
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:				_	
Other: NFIP Freeboard	Yes	State	No	Yes	-
Comment: • State mandated on local level under NJA Adopted 9/3/2019 • The Building Department is responsible	for this code in co	mpliance with Chapter	200 – Construct	tion Codes, Unifo	
Other: Soil Erosion and Sediment Control	Yes	Local	No	Yes	-
<i>Comment:</i> The Planning and Zoning Department is Sediment Control.	s responsible for th	ese ordinances in comp	oliance with Cha	pter 441 – Soil E	rosion and
Other: Genetically Engineered Microorganisms	Yes	Local	No	Yes	-
<ul> <li>Comment:</li> <li>Chapter 290, Genetically Engineered Microorganisms deals with the release of microorganisms.</li> <li>"The Township Committee shall adopt, by resolution, such rules and regulations which shall, in its discretion, be deemed reasonable and necessary governing the application for permission to release any genetically engineered microorganism into the outdoor environment of the Township, including, but not limited to, regulations requiring completion of appropriate applications; submission of a plan for environmental protection, containment and disposal; submission of a plan insuring the health, safety and welfare of the public; submission of approvals by appropriate state and federal governmental agencies; payment of fees and costs to the Township; survey and location of the release site and affected areas; and posting of appropriate sureties or other insurances to guarantee against liability for damage or loss."</li> </ul>					
Other: Hazardous Materials	Yes	Local	No	Yes	-
Comment:					
Chapter 300, Hazardous Materials deals with the emergency response and cost recovery of hazardous materials.  Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	
Comment: • 2018 Revised NJ Statute 40:27-2; the co the county. The master plan of a county,	unty planning boa	rd shall make and adop	t a master plan j	for the physical d	



				Have aspects of the HMP been integrated into your		
		Authonity that			ances/plans?	
		Authority that enforces			If no - add	
	Do you have	(Federal, State,	Is this	If yes- how?	Mitigation	
	this? (Yes/No)	Regional, County, Local)	State Mandated?	Describe in comments.	Action #, if applicable.	
show the county planning board's recon	mendations for the	e development of the te	rritory covered	by the plan, and i	nay include,	
among other things, the general location developments, parkways, playgrounds, j						
the general location and extent of forest						
water supply, sanitary and drainage fac						
important to the development of the cou municipalities within the county in any p						
advise the board of chosen commissione						
expenditures. Per State of NJ Municipal components of a municipal Master Plan						
Further, all zoning ordinances must be	consistent with the	Master Plan or will not				
The Planning Board is responsible for the second seco						
Capital Improvement Plan	Yes	Local	No	Yes	-	
Comment: This Capitol Improvement Plan was add	opted in 2015.	[				
Disaster Debris Management Plan	Yes	Local	No	Yes	-	
<b>Comment:</b> Disaster debris is addressed within the 2018 and the Fredon Township Ordinance 2021-03					s Plan October	
Floodplain or Watershed Plan	No	-	No	-	-	
Comment:						
Stormwater Management Plan	Yes	Federal, State & Local	Yes	Yes	-	
Comment:						
<ul> <li>The Stormwater Management rules (N the required components of regional and design and performance standards for m</li> </ul>	d municipal stormv	vater management plan	s and establish t	he stormwater m	anagement	
include groundwater recharge, runoff q						
consideration, the use of nonstructural s						
impervious surfaces, minimizing the use requirements for groundwater recharge						
of major development to be located with					ian zone	
<ul> <li>without prior authorization from the De</li> <li>The Land Use Board is responsible for a</li> </ul>				, N.J.A.C. /:13.		
Identified in Fredon Township Ordinance				ent February 20	21	
Stormwater Pollution Prevention Plan	Yes	Federal & Local	Yes	Yes	-	
Comment:		Contant Ctanna Day				
• The Phase II New Jersey Pollutant Disc 7:14A) were published in the February						
associated with existing stormwater run	off. The NJPDES r	ules establish a regulat	ory program for	existing stormw	ater discharges	
as required under the Federal Clean Wa operate small municipal separate storm						
municipalities, certain public complexes	s such as universiti	es and hospitals, and St	tate, interstate a	nd federal agenc	ies that operate	
or maintain highways. The permit progr		1		1		
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.	a floatables contro	n; locating alsonarge p	oints and stencil	ing catch basins;	ana a public	
Identified in Fredon Township Ordinand	ce 2021-03: Amend	ling Chapter 457 Storm	water Managem	<u>ent February 20</u>	21	
Urban Water Management Plan	No	-	No	-	-	
Comment: Fredon Township is a rural community this is not applicable.						
Habitat Conservation Plan	No	-	No	-	-	
Comment:						
Economic Development Plan	No	-	No	-	-	
nume 200 eropaient i num	110		110			





		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	Do you have this? (Yes/No)		Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Comment:						
Shoreline Management Plan	No	-	No	-	-	
Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and structures, and site preparation. This la	enlargement of but	ildings or structures, an	nd excavation, gr	ading, shore prot	ection	
Community Wildfire Protection Plan	No	-	No	-	-	
Comment:						
Community Forest Management Plan	No	-	No	-	-	
Comment:		1				
Transportation Plan	Yes	Local	No	Yes	-	
Comment: The Office of Emergency Management i	s responsible for t	his plan. This plan was	adopted in 2014			
Agricultural Plan	Yes	Local	No	Yes	-	
Comment: The Land Use Board is responsible for a	this plan in compli	ance with the Master Pa	lan.			
Climate Action Plan	No	-	No	-	-	
Comment:						
Tourism Plan	No	-	No	-	-	
Comment:						
Business Development Plan	Yes	Local	No	Yes	-	
<i>Comment:</i> The Land Use Board is responsible for a	this nlan in compli	ance with the Master P	lan			
Other: Open Space Plan	Yes	State & Local	No	Yes	-	
<i>Comment:</i> The Planning Board is responsible for t.			110	103		
		-	N	V		
Other: Stream Corridor Management Plan Comment: The Land Use Board is responsible for a	Yes	Local	No	Yes	-	
		unce with the Musier 1	iun.			
Other: Watershed Management or Protection Plan	Yes	Local	No	Yes	-	
<b>Comment:</b> The Land Use Board is responsible for a	this plan in compli	ance with the Master P	lan.			
Response/Recovery Planning	1 1					
Comprehensive Emergency Management Plan	Yes	Local	Yes	Yes		
(CEMP) / Emergency Operations Plan (EOP) Comment:	105	Local	103	103		
<ul> <li>Each county and municipality in the State necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State The Office of Emergency Management i.</li> </ul>	Emergency Operat een adopted by the e Emergency Oper	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2	ted no later than ency Managemen 222, s.19.	one year after that and shall be even	e State	
Threat & Hazard Identification & Risk	Yes	Local	Yes	Yes	-	
Assessment (THIRA) Comment:		I				
• Contained within Emergency Operation						
The Office of Emergency Management i.						
Post-Disaster Recovery Plan	Yes	Local	Yes	Yes	-	
Comment: Contained within Emergency Operation The Office of Emergency Management i.		his plan. This plan was	adopted in 2018.			



		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Op you have this?enforces (Federal, State, Regional, County, Local)		Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<b>Continuity of Operations Plan</b>	Yes	Local	Yes	Yes	-
<ul> <li>Comment:</li> <li>Contained within Emergency Operations Plan.</li> <li>The Office of Emergency Management is responsible for this plan. This plan was adopted in 2018.</li> </ul>					
Public Health Plan	Yes	Local	Yes	Yes	-
<ul> <li>Comment:</li> <li>Contained within Emergency Operations Plan.</li> <li>The Office of Emergency Management is responsible for this plan. This plan was adopted in 2018.</li> </ul>					
Other	No	-	No	-	-
Comment:					

### Table 9.8-3. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes
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

#### ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

#### Table 9.8-4. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Land Use Board	Yes	Combined Planning & Zoning Board
Mitigation Planning Committee	Yes	Fredon Township Committee
Environmental Board / Commission	Yes	Environmental Commission. The Fredon Township Environmental Commission is the focal point for environmental issues affecting the Township. The Commission's area of interest and activities include preservation of natural resources, conservation of open space, inventory of natural resources, water quality, environmental education, enhancement of the quality of life in the Township, solicitation of grants and historical preservation. Anything that may adversely affect or enhance the Township's environment is of interest to the Commission. The Commission is an advisory body to the Planning Board. The Commission reviews applications for development submitted to the Board and reports on elements that may have a negative impact on the environment.





Staff/Personnel Resource	Available?	Department/Agency/Position
Open Space Board / Committee	Yes	Open Space Commission. In an effort to preserve Fredon's rural character, the Open Space Commission was formed in the spring of 2006. The mission of this group is to identify and prioritize land parcels for preservation, make recommendation to the township committee, and develop partnerships with allied organizations. The group focuses on land that preserves agriculture, scenic views, water quality, wildlife, and passive/active recreation. The funds to support the purchases or preservation of land are generated by the Open Space Tax. In 2008, the Township Committee reduced the Open Space Tax from 2 cents to 1 cent per \$100,000 of the revised assessed value of a home, and it was reduced again to 1/2 a cent in 2009.
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	No	-
Maintenance program to reduce risk	Yes	Tree trimming, stormwater catch basin maintenance
Mutual aid agreements	Yes	Verbal agreements
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Pellow Engineering
Engineers or professionals trained in building or infrastructure construction practices	Yes	State
Planners or engineers with an understanding of natural hazards	Yes	Pellow Engineering and State
Staff with training in benefit/cost analysis	No	-
Staff with training in green infrastructure	Yes	E. Banyra, Township Planner
Staff with education/knowledge/training in low impact development	Yes	E. Banyra, Township Planner
Surveyor	No	-
Stormwater engineer	Yes	Pellow Engineering
Personnel skilled or trained in GIS applications	No	-
Local or state water quality professional	Yes	Sussex County
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	Appointed by Township Committee
Watershed planner	No	
Environmental specialist	Yes	E. Banyra, Township Planner
Grant writers	No	-
Resilience Officer	No	-
Other: Professionals trained in conducting damage assessments	Yes	State Building Inspector

#### FISCAL CAPABILITY

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



### Table 9.8-5. 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
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	State Aid
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 Fredon.

### Table 9.8-6. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes, Mayor designated
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.	No
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, Website capable of messaging. Social media. Fire prevention programs are conducted annually at schools.

#### **COMMUNITY CLASSIFICATIONS**

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

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

#### Table 9.8-7. Community Classifications





#### 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.

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

#### Table 9.8-8. Adaptive Capacity

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 9.8-9. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Land Use Board
Who is your floodplain administrator? (name, department/position)	Keith Festa, OEM Coordinator
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	2/2021
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	Meets N.J.S.A. 40-48-1 et seq
When was the most recent Community Assistance Visit or Community Assistance Contact?	December 7, 1994





Criterion	Response
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?	No
Does your jurisdiction participate in the Community Rating System (CRS)? -If yes, is your jurisdiction interested in improving its CRS Classification? -If no, is your jurisdiction interested in joining the CRS program?	No
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	3 policies \$1,050,000 insurance in force \$1,359 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	2 claims \$6,937 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

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

# 9.8.5 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 Fredon'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 9.7-10 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 9.8-10.	. Hazard Event His	story
---------------	--------------------	-------

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 <sup>rd</sup> and 24th.	\$6,810.81 Overtime for storm cleanup
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.	\$8.311.98

Source: FEMA 2020, NOAA-NCEI 2020



# 9.8.6 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 Fredon 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 Fredon 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 Fredon has significant exposure.

### **REPETITIVE FLOOD LOSSES**

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

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

Source: FEMA 2019

### **CRITICAL FACILITIES**

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

#### Table 9.8-11. Critical Facilities and Lifelines Flood Exposure

		Expo	osure				
Name	Туре	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 Township would like to utilize the Civic Center at 436 NJ-94, Newton, NJ 07860 for emergency housing, use as a warming shelter, etc. However, the building will require upgrades. In addition, the shelter would require staffing as staffing from the Township is limited.
- Backup power sources are necessary to maintain critical services for critical facilities. The Township Civic Center requires a backup power source. The site also houses the fire house and EMS. The Township has plans to establish the Civic Center as an emergency shelter.
- The Greendell Road and Long Hill catch basin is in need of replacement in order to improve stormwater.
- Deer Run requires installation of a storm drain to allow for proper stormwater management and to reduce risk of flooding.





## 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 Fredon 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 Fredon. The Township of Fredon 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 Fredon agreed with the calculated hazard rankings.

Dam Failure	Disease Outbrea	k Drought	Earthqu	thquake		uake		Flood	Geologic
Medium	Medium	Medium	Medium Low M		Medium	Low			
	Hurricane					Severe			
Hazardous Materials	and Tropical Storm	Invasive Species	Nor'Easter		vere Ither	Winter Weather	Wildfire		
Medium	High	Medium	High	Hi	igh	High	Low		

### Table 9.8-12. Township of Fredon Hazard Ranking

## 9.8.7 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 9.7-14 and Table 9.7-15 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 9.8-13. Status of Previous HMP Mitigation Actions

201	L6 Action Number Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)		the 2021 HMP odate? Enter 2021 HMP Action #
Fredon- 1 (old #1 and 11)	Harden the Township's Civic Center and EOC to FEMA 361 standards.	Township Administration, OEM	No Progress	х	2020-Fredon- 001, 2020- Fredon-002
Fredon- 2 (old #2 and 3)	When updating the roof of the Township school, incorporate current high wind standards into the design.	School Administration	No Progress		





			Status (In Progress, No	Include in the 2021 HMP Update?		
201	6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #	
Fredon- 3 (old #6 and 8)	Conduct inundation studies for the dams located in the Township: twin dams at Warner Road and Paulinskill Lake Road and at Whittemore Pond.	Township Engineer No Progress				
Fredon- 4 (old #9)	Upgrade and improve stormwater culverts at intersection of Pond Place and Slate Ridge.	Township Engineer	No Progress			
Fredon- 5 (old #10)	Install stormwater runoff retention basin located at Newton Medical Center	Township Engineer, Hospital Administration	No Progress			
Fredon- 6 (new)	Review the current hazard mitigation plan prior to updating plans, ordinances, etc. within the Township.	Township Administration	Completed; Fredon Township Ordinance 2021-03			
Fredon- 7 (old #12)	Develop and implement a multi-hazard public outreach program.	Township Administration, OEM	Ongoing Capability			
Fredon- 8 (new)	Continue with the process of adding additional radio equipment on an existing tower in the Township. Awaiting zoning sign off; then will complete project.	Township OEM and County OEM	No Progress			
Fredon- 9 (revised old #4)			No Progress	Х	2020-Fredon- 002	

In addition to the above progress, the Township of Fredon 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 Fredon 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 Fredon 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 9.7-14 summarizes the comprehensive-range of specific mitigation initiatives the Township of Fredon 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 9.7-15 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.8-14. 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												
2020- Civic Center	<b>Problem</b> : The Township would like to utilize the Civic Center at 436 NJ-94, Newton, NJ 07860 for emergency housing, use as a warming shelter, etc. However, the building will require upgrades. In addition, the shelter would require staffing as staffing from the Township is limited.															All	I	OEM, FEMA, Sussex	FEMA HMGP and BRIC, USDA Communit	Civic Center used for	\$125,	Wi thi n	Hig		ES
Fredon- 001	Emergency Shelter	<b>Solution:</b> The Township will work with FEMA to identify what upgrades are needed to the facility to meet sheltering guidelines. Expected upgrades needed include cots, potential showering locations, etc. The Township will work with Sussex County OEM and the American Red Cross to establish sheltering staffing agreements.	Existing	Hazards	1	County OEM, American Red Cross	y Facilities Grant Program, EMPG, Municipal Budget	emerge ncy shelteri ng	000	5 ye ars	h	SIP	ES												
2020-	Civic Center	Problem: Backup power sources are necessary to maintain critical services for critical facilities. The Township Civic Center requires a backup power source. The site also houses the fire house and EMS. The Township has plans to establish the Civic Center as an emergency shelter.		Severe Storm, Severe	Storm,	Storm,	Storm,	Storm,	Storm,	Storm,	Storm,	Storm,		Engineer,	FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program,	Ensure s continu ity of	\$50.0	Wi thi n	Hig						
Fredon- 002	don- Backup Power Existing Winter 1	1	OEM	Emergency Manageme nt Performanc e Grants (EMPG) Program, Municipal Budget	operati ons of Civic Center	00	5 ye ars	h	SIP	ES															
	Greendell Road	<b>Problem</b> : The Greendell Road and Long Hill catch basin is in need of replacement in order to improve stormwater.					HMGP,	Reduce flood risk,																	
2020- Fredon- 003	And Long Hill Catch Basin Project	<b>Solution:</b> The Township Engineer will design the replacement catch basin. The DPW will install the catch basin designed by the Engineer.	Existing	Flood, Severe Weather	2	Engineer, DPW	BRIC, Capitol Improveme nt Fund	increas e stormw ater manag ement	High	l ye ar	Hig h	SIP	SP												



Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s ) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2020-	Storm Drain and Maintain Easement Deer Run Installation	<b>Problem</b> : Deer Run requires installation of a storm drain to allow for proper stormwater management and to reduce risk of flooding.		Flood, Severe Weather		Engineer,	HMGP, BRIC,	Reduce flood risk, increas		6 m	Hig		
Fredon- 004		<b>Solution:</b> The Township will secure an easement and design and construct a storm drain at Deer Run.	New		2	DPW	Capitol Improveme nt Fund	e stormw ater manag ement	High	on ths	h	SIP	SP

Flood Mitigation Assistance Grant Program

Hazard Mitigation Grant Program

Pre-Disaster Mitigation Grant Program

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

#### 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.

Potential FEMA HMA Funding Sources:

FMA

HMGP

PDM

- 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.

#### Timeline:

The time required for completion of the project upon implementation

<u>Cost:</u>

The estimated cost for implementation.

#### Benefits:

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



A

Table 9.8-15. 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
2020- Fredon-001	Civic Center Emergency Shelter	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2020- Fredon-002	Civic Center Backup Power	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2020- Fredon-003	Greendell Road And Long Hill Catch Basin Project	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2020- Fredon-004	Storm Drain and Maintain Easement Deer Run Installation	0	1	1	1	1	0	1	1	1	1	1	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.

Tt



Table 9.8-16. Analysis of Mitigation	Actions by Hazard and Category
--------------------------------------	--------------------------------

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

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard





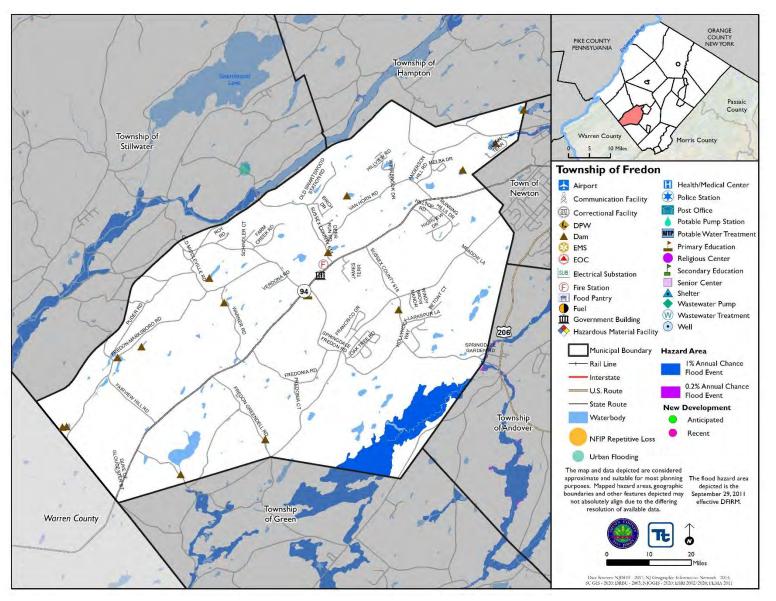


Figure 9.8-1. Township of Fredon Hazard Area Extent and Location Map 1





Τt

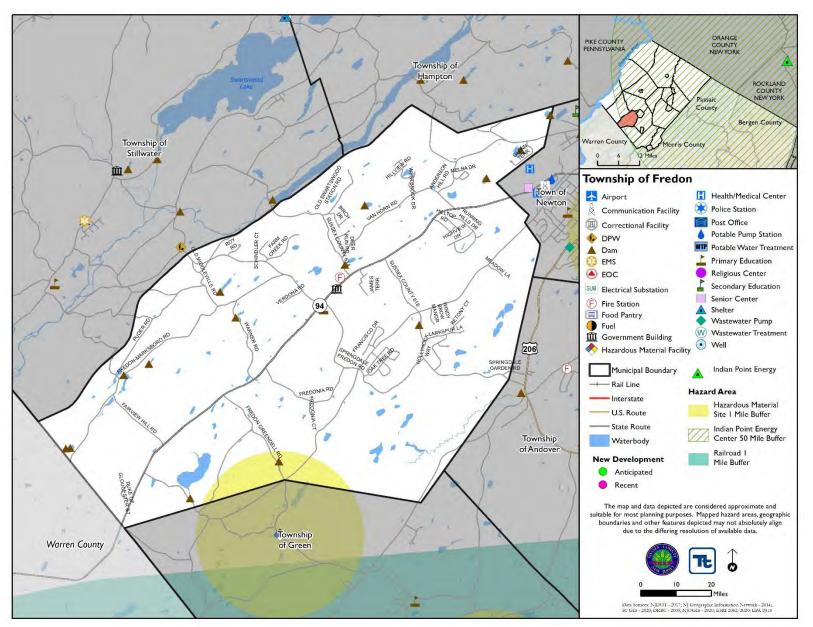


Figure 9.8-2. Township of Fredon Hazard Area Extent and Location Map 2



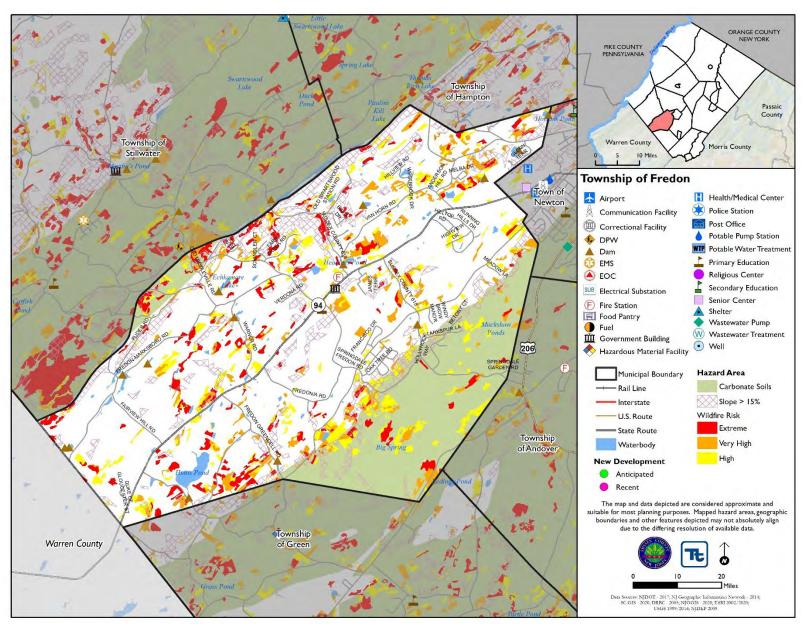


Figure 9.8-3 Township of Fredon Hazard Area Extent and Location Map 3



	Action V	Worksheet				
Project Name:	Civic Center Emergency Shelter					
Project Number:	2020-Fredon-001					
Risk / Vulnerability						
Hazard(s) of Concern:	All Hazards					
Description of the Problem:	emergency housing, use as a upgrades. In addition, the she limited.	utilize the Civic Center at 436 NJ-9 warming shelter, etc. However, the lter would require staffing as staffi	building will require			
Action or Project Intended						
Description of the Solution:	meet sheltering guidelines. Ex	FEMA to identify what upgrades spected upgrades needed include of will work with Sussex County OE taffing agreements.	ots, potential showering			
Is this project related to a	Critical Facility? Yes	No 🗌				
Level of Protection:	Emergency shelter requirements	Estimated Benefits (losses avoided):	Civic Center used for emergency sheltering			
Useful Life:	15 years	Goals Met:	1			
Estimated Cost:	\$125,000	Mitigation Action Type:	Structure and Infrastructure Project			
Plan for Implementation						
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years			
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, EMPG, Municipal Budget			
Responsible Organization:	OEM	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation, emergency management			
Three Alternatives Conside	ered (including No Action)					
	Action	Estimated Cost	Evaluation			
	No Action	\$0	Problem continues.			
Alternatives:	Purchase multi-use trailers	\$1M per trailer	Require deployment, limited space			
	Build separate facility	High	Costly			
Progress Report (for plan i	naintenance)					
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Action Worksheet					
Project Name:	Civic Center Emergency Shelter				
Project Number:	2020-Fredon-001				
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate			
Life Safety	1	Provides sheltering			
Property Protection	1	Project will strengthen building protections			
Cost-Effectiveness	1				
Technical	1	The project is technically feasible			
Political	1				
Legal	1	The Township has the legal authority to complete the project			
Fiscal	0	Project requires funding support			
Environmental	1				
Social	1				
Administrative	1				
Multi-Hazard	1	All Hazards			
Timeline	0	Within 5 years			
Agency Champion	1	OEM			
Other Community Objectives	1				
Total	12				
Priority (High/Med/Low)	High				



	Action	Mowlashoot					
	Civic Center Backup Power	Worksheet					
Project Name:							
Project Number:	2020-Fredon-002						
Risk / Vulnerability							
Hazard(s) of Concern:	Severe Storm, Severe Winter Storm, Hurricane, Nor'Easter						
Description of the Problem:	Backup power sources are necessary to maintain critical services for critical facilities. The Township Civic Center requires a backup power source. The site also houses the fire house and EMS. The Township has plans to establish the Civic Center as an emergency shelter.						
Action or Project Intended							
Description of the Solution:	The Engineer will research what size generator is needed to power the Civic Center. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Municipal Building.						
Is this project related to a	Critical Facility? Yes	No 🗌					
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Ensures continuity of operations of Civic Center				
Useful Life:	20 years	Goals Met:	1				
Estimated Cost:	\$50,000	Mitigation Action Type:		Structure and Infrastructure Projects (SIP)			
Plan for Implementation							
Prioritization:	High	Desired Timeframe for Implementation:	Desired Timeframe for Implementation:				
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sou		FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget			
Responsible Organization:	Engineer, OEM	Local Planning Mechar to be Used in Implementation if any		Hazard Mitigation, Emergency Management			
Three Alternatives Conside	ered (including No Action)	,	-	L			
	Action	Estimated Cost		Evaluation			
	No Action	\$0		Problem continues.			
Alternatives:	Install solar panels	\$100,000	amo e	eather dependent; need large ount of space for installation; xpensive if repairs needed			
	Install wind turbine	Weat		ther dependent; poses a threat wildlife; expensive repairs if needed			
Progress Report (for plan i	naintenance)	·	•				
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





Action Worksheet					
Project Name:	Civic Center Backup Power				
Project Number:	2020-Fredon-002				
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate			
Life Safety	1	Project will protect critical services of the Civic Center and allow the building to be used for sheltering			
Property Protection	1	Project will protect building from power loss.			
Cost-Effectiveness	1				
Technical	1				
Political	1				
Legal	1	The Township has the legal authority to complete the project.			
Fiscal	0	Project requires funding support.			
Environmental	1				
Social	1				
Administrative	1				
Multi-Hazard	1	Severe Storm, Severe Winter Storm, Hurricane, Nor'Easter			
Timeline	0	Within 5 years			
Agency Champion	1	Engineer, OEM			
Other Community Objectives	1				
Total	12				
Priority (High/Med/Low)	High				





		Action	Works	sheet			
Project Name:	Greendell Road An	Greendell Road And Long Hill Catch Basin Project					
Project Number:	2020-Fredon-003						
Risk / Vulnerability							
Hazard(s) of Concern:	Flood, Severe Weat	Flood, Severe Weather					
Description of the Problem:	The Greendell Road stormwater.	The Greendell Road and Long Hill catch basin is in need of replacement in order to improve stormwater.					
Action or Project Intended							
Description of the Solution:	The Township Engineer will design the replacement catch basin. The DPW will install the catch basin designed by the Engineer.						
Is this project related to a	Critical Facility?	Yes		No 🖂			
Level of Protection:	TBD by engineerir	ng study		mated Benefits ses avoided):	Reduce flood risk, increase stormwater management		
Useful Life:	20 years			ls Met:	2		
Estimated Cost:	High		Miti	gation Action Type:	Structure and Infrastructure Project		
Plan for Implementation			-				
Prioritization:	High			ired Timeframe for lementation:	6 months		
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		HMGP, BRIC, Capitol Improvement Fund		
Responsible Organization:	Engineer, DPW		to b	al Planning Mechanisms e Used in lementation if any:	Hazard mitigation, Stormwater management		
Three Alternatives Conside	ered (including No	Action)					
	Action			Estimated Cost	Evaluation		
Alternatives:	No Action Buyout homes exp			\$0 High	Problem continues. Costly		
	flooding Close roadways experience floo		Low		Loss of access		
Progress Report (for plan	maintenance)						
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							

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Action Worksheet						
Project Name:	Greendell Road And Long Hill Catch Basin Project					
Project Number:	2020-Fredon-003					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	0					
Property Protection	1	Properties protected from flooding				
Cost-Effectiveness	1					
Technical	1	The project is technically feasible				
Political	1					
Legal	1	The Township has the legal authority to complete the project				
Fiscal	1	Project has funding support identified				
Environmental	1					
Social	1					
Administrative	1					
Multi-Hazard	1	Flood, Severe Weather				
Timeline	1	1 year				
Agency Champion	1	Engineer, DPW				
Other Community Objectives	1					
Total	13					
Priority (High/Med/Low)	High					

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	Action	Worksheet				
Project Name:	Storm Drain and Maintain Easement Deer Run Installation					
Project Number:	2020-Fredon-004					
Risk / Vulnerability						
Hazard(s) of Concern:	Flood, Severe Weather					
Description of the Problem:	Deer Run requires installation and to reduce risk of floodin	n of a storm drain to allow for prop g.	er stormwater management			
Action or Project Intended						
Description of the Solution:	The Township Engineer will design the necessary stormwater improvements and new features. The DPW will install the stormwater system components designed by the Engineer.					
Is this project related to a Critical Facility? Yes 🗌 No 🖂						
Level of Protection:	TBD by engineering study	Estimated Benefits (losses avoided):	Reduce flood risk, increase stormwater management			
Useful Life:	20 years	Goals Met:	2			
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Project			
Plan for Implementation						
Prioritization:	High	Desired Timeframe for Implementation:	1 year			
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	HMGP, BRIC, Capitol Improvement Fund			
Responsible Organization:	Engineer, DPW	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation, Stormwater management			
Three Alternatives Conside						
	Action	Estimated Cost	Evaluation			
	No Action	\$0	Problem continues.			
Alternatives:	Buyout homes exposed to flooding	High	Costly			
	Close roadways that experience flooding	Low	Loss of access			
Progress Report (for plan	naintenance)					
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						

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Action Worksheet					
Project Name:	Storm Drain and Maintain Easement Deer Run Installation				
Project Number:	2020-Fredon-004				
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate			
Life Safety	0				
Property Protection	1	Properties protected from flooding			
Cost-Effectiveness	1				
Technical	1	The project is technically feasible			
Political	1				
Legal	0	Project requires securing an easement			
Fiscal	1	Project has funding support identified			
Environmental	1				
Social	1				
Administrative	1				
Multi-Hazard	1	Flood, Severe Weather			
Timeline	1	1 year			
Agency Champion	1	Engineer, DPW			
Other Community Objectives	1				
Total	12				
Priority (High/Med/Low)	High				





# 9.9 TOWNSHIP OF GREEN

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

# 9.9.1 Hazard Mitigation Planning Team

The Township of Green 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 9.9-1. Hazard Mitigation Planning Team

Primary 1	Point of Contact		Alternate Point of Contact	
Name / Title: Mark Zscha Clerk/Administrator	ck, Municipal	Name / Title: Margaret "Peg" Phillips, Mayor Address: 150 Kennedy Road, P.O. Box 65, Tranquility, NJ		
		07879	Kennedy Koad, 1.0. Dox 03, Tranquinty, NJ	
NJ 07879			per: (908) 852-9333	
Phone Number: (908) 852 Email: clerkadmin@greer		Email: pphill	lips@greentwp.com	
NFIP Floodplain Admin Name / Title: Cory Stoner Address: 17 Plains Road, Phone Number: 973-948- Email: cstoner@hpellow.c	r, Township Engineer Augusta, NJ 07822 6463			
Name	Title		Method of Participation	
Mark Zschack	Municipal Clerk/Administrator		Primary point of contact, provided data and information, contributed to mitigation strategy; attended the annex training and risk assessment meeting, reviewed annex*	
Margaret "Peg" Phillips	Mayor		Alternate point of contact	
Cory Stoner	Township Engineer		NFIP floodplain administrator, reviewed annex*	
Linda Padula	CFO		Reviewed annex*	
Richard O'Connor	Construction Official		Reviewed annex*	
Mike Rose	OEM Coordinator, Fire Departm	ent Chief	Reviewed annex*	
Jessica Caldwell	Principal Planner		Reviewed annex*	
Watson Perigo	Department Head, Public Works		Reviewed annex*	

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B





# 9.9.2 Jurisdiction Profile

Green Township is located in southwestern Sussex County and is bordered to the north by Fredon and Andover Townships, to the south and west by Warren County and to the east by Byram Township. The following unincorporated communities are located within the Township: Huntsburg, Greendell, Tranquility, and Huntsville. The Pequest River, Bear Brook, and Trout Brook are named streams that flow through the Township. Lake Tranquility, Buckmire Pond, and Turtle Pond are the larger named lakes located in the Township.

According to the U.S. Census, the 2010 population for the Township of Green was 3,601. The estimated 2018 population was 3,495, a 2.9 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 2.4 percent of the population is 5 years of age or younger and 15.2 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.

# 9.9.3 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 9.8-2 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.

Type of		2015	2	016	0	015		0040		2010
Development	Num	2015 1ber of Buildin		016 ts for New		017 ction Issued		2018 ne Previous H	MP	2019
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single and Two-Family Units	6	2	2	0	4	0	2	2	0	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	0	0	0	0	2	0	1	0	2	0
Property or Development Name	Development Type # o		Location # of Units / (address and/or Structures block and lot)		Z	vn Hazard one(s)*		iption / Status evelopment		
	1	Recent Ma	jor Deve	lopment a	nd Infras	structure fr	-		1	
					200	D (	Nuclear Incident Hazard Area,		<b>C</b> 1	(; ; p
						Pequest ock 22 Lots	Carbonate Soil, Hazardous Material		Constru	ction in Progress
Crossed Keys	Co	ommercial		1		& 2.02	Incident Hazard Area			
						-	Nuclear Incident			
							Hazard Area,			
							Carbonate Soil, Wildfire, Hazardous		Constru	ction in Progress
					-	Road/ Block		ial Incident		
Forest Flats	Iı	ndustrial		1	31 I	.ot 1.05	Haz	ard Area		

# Table 9.9-2. Recent and Expected Future Development





			1		
				Nuclear Incident	
				Hazard Area, Railway	
				Incident Hazard Area,	
				Hazardous Material	Construction in Progress
				TT 1.4	
			Airport Road/ Block		
Ridge Rock	Industrial	1	31 Lot 1.09	Carbonate Soil	
Property or			Location		
Development	Туре	# of Units /	(address and/or	Known Hazard	Description / Status of
Name	of Development	Structures	block and lot)	Zone(s)*	Development
				Nuclear Incident	
				Hazard Area,	
				Carbonate Soil,	Construction in Progress
			246 Brighton Road/	Wildfire, Railway	construction in Frogress
Airside	Industrial	1	Block 26 Lot 4	Incident Hazard Area	
Allslue	muusunai	1	-		
-			47 Decker Pond	Nuclear Incident	a 1.1
Tranquility		_	Road/ Block 113	Hazard Area,	Completed
Farms	Commercial	2	Lot 3	Carbonate Soil	
Indoor Riding			81 Henry Road/	Railway Incident	Completed
Ring	Commercial	1	Block 9 Lot 4.01	Hazard Area	Completed
				Nuclear Incident	
				Hazard Area, Railway	Construction in Progress
Gas Main	Infrastructure	N/A	Whitehall Road	Incident Hazard Area	
Gas Main	minastructure	11/21	wintenan Road	Nuclear Incident	
				Hazard Area,	
				Carbonate Soil,	
				Wildfire, Hazardous	
			Airport Road/ Block	Material Incident	
Emerald Glen	Industrial	1	31 Lot 1.07	Hazard Area	
	Known or Anticipated	l Major Developm	ent and Infrastructu	re in the Next Five (5)	) Years
	Known or Anticipated	l Major Developm	ent and Infrastructu		) Years
	Known or Anticipated	l Major Developm	ent and Infrastructu	Nuclear Incident	) Years
	Known or Anticipated	l Major Developm	ent and Infrastructu	Nuclear Incident Hazard Area,	) Years
	Known or Anticipated	l Major Developm N/A	ent and Infrastructu	Nuclear Incident Hazard Area, Carbonate Soil,	) Years Anticipated
	Known or Anticipated			Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous	
			Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident	
Cedar Peak	Known or Anticipated			Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area	
Cedar Peak			Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident	Anticipated
Cedar Peak			Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway	Anticipated
Cedar Peak		N/A	Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area,	Anticipated
Cedar Peak			Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway	Anticipated
Cedar Peak		N/A	Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material	Anticipated
Cedar Peak Pine Summit		N/A	Airport Road/ Block 31 Lot 1.06	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material	Anticipated
	Industrial	N/A	Airport Road/ Block 31 Lot 1.06 Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material Hazard Area,	Anticipated
	Industrial	N/A	Airport Road/ Block 31 Lot 1.06 Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material Hazard Area, Carbonate Soil Nuclear Incident	Anticipated Anticipated
	Industrial	N/A N/A	Airport Road/ Block 31 Lot 1.06 Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material Hazard Area, Carbonate Soil Nuclear Incident Hazard Area, Railway	Anticipated Anticipated
	Industrial	N/A	Airport Road/ Block 31 Lot 1.06 Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material Hazard Area, Carbonate Soil Nuclear Incident Hazard Area, Railway Incident Hazard Area,	Anticipated Anticipated
Pine Summit	Industrial	N/A N/A	Airport Road/ Block 31 Lot 1.06 Airport Road/ Block 31 Lot 1.04	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material Hazard Area, Carbonate Soil Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material	Anticipated Anticipated
Pine Summit	Industrial	N/A N/A	Airport Road/ Block 31 Lot 1.06 Airport Road/ Block 31 Lot 1.04 Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material Hazard Area, Railway Incident Hazard Area, Carbonate Soil Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material Hazard Area,	Anticipated Anticipated
Pine Summit	Industrial	N/A N/A	Airport Road/ Block 31 Lot 1.06 Airport Road/ Block 31 Lot 1.04	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Carbonate Soil Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material Hazard Area, Carbonate Soil	Anticipated Anticipated
Pine Summit	Industrial	N/A N/A	Airport Road/ Block 31 Lot 1.06 Airport Road/ Block 31 Lot 1.04 Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material Hazard Area, Railway Incident Hazard Area, Carbonate Soil Nuclear Incident Hazard Area, Carbonate Soil Hazard Area, Carbonate Soil Nuclear Incident	Anticipated Anticipated Anticipated
Pine Summit	Industrial	N/A N/A N/A	Airport Road/ Block 31 Lot 1.06 Airport Road/ Block 31 Lot 1.04 Airport Road/ Block 31 Lot 1.03	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material Hazard Area, Railway Incident Hazard Area, Carbonate Soil Nuclear Incident Hazard Area, Carbonate Soil Nazard Area, Carbonate Soil Nuclear Incident Hazard Area, Carbonate Soil	Anticipated Anticipated Anticipated
Pine Summit	Industrial	N/A N/A	Airport Road/ Block 31 Lot 1.06 Airport Road/ Block 31 Lot 1.04 Airport Road/ Block	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire, Hazardous Material Incident Hazard Area Nuclear Incident Hazard Area, Railway Incident Hazard Area, Hazardous Material Hazard Area, Railway Incident Hazard Area, Carbonate Soil Nuclear Incident Hazard Area, Carbonate Soil Hazard Area, Carbonate Soil Nuclear Incident	Anticipated Anticipated Anticipated





		Hazard Area,	
		Carbonate Soil	

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

# 9.9.4 Capability Assessment

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

	Authority th			Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
<ul> <li>Comment:         <ul> <li>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</li> <li>The Zoning Official is responsible for this code in compliance with State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.).</li> </ul> </li> </ul>					
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment:					

# Table 9.9-3. Planning, Legal and Regulatory Capability





		Authority that		been integra	ts of the HMP ited into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and m.</li> <li>The Zoning Official is responsible for th</li> </ul>	to have current zo aster plan.	oning and other land de	velopment ordin	f Aug 1, 1976, 40 ances after the p	)-55D-62: 49. lanning board
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<ul> <li>The governing body may by ordinance rest the filing of such plats with the county recondition for the issuance of a permit for or two dwelling-unit buildings shall be even of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a county by said county planning board a set forth and limited hereinafter in this subsection of the Zoning Official is responsible for the subsection for the county official is responsible for the county of the county official is responsible for the county of the county of the county official is responsible for the county of the county of the county official is responsible for the county of the county of the county official is responsible for the county of the county of the county of the county official is responsible for the county of the county of the county of the county official is responsible for the county of the county of the county of the county of the county official is responsible for the county of the county of the county of the county of the county official is responsible for the county of the county official is responsible for the county of the county</li></ul>	ecording officer an r any development exempt from such s the planning board of this act . Dictate ounty planning board nd for the approva section.	d approval of site plans , except that subdivision ite plan review and app d whenever the board o ed by the Municipal Lan ard shall provide for th el of those subdivisions	s by resolution o n or individual lo proval; provided f adjustment has nd Use Law. NJ e review of all s affecting county	f the planning bo ot applications fo that the resolution s jurisdiction over Statute 40:27-6.2 ubdivisions of lan	ard as a r detached one on of the board r a subdivision ? - the board of nd within the
Stormwater Management	Yes	County & Local	Yes	Yes	-
Comment: • See Title 7 of the NJ Administrative Cod • The Township Committee is responsible	for this ordinance	in compliance with N.J		ction 30-17.1A.	
Post-Disaster Recovery	No	-	No	-	-
Comment: Real Estate Disclosure	No	State, Division of Consumer Affairs	Yes	No	-
<b>Comment:</b> N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Con improvements, fees for services and amenities, the t and police, as well as any hazards, risks or nuisance	nmission. The POS ype of title and ow	S provides information s mership interest being o	such as estimated	d completion date	es for
Growth Management	No	-	Yes – if municipality has a Planning Board	No	-
Comment: • State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make	lineation of Growt	h Areas and Environs;	Use of the endor	sed plans in the i	
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: Dictated by the Municipal Land Use Law review. NJ Statute 40:27-6.2: The board review of all subdivisions of land within affecting county road or drainage facili planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publ	l of commissioners the county by said ties as set forth an ile of the planning y planning board a notify the county p djoining county p	of any county having a county planning board d limited hereinafter in and zoning ordinances copy of the planning a planning board of the in boads or other county lan	county planning d and for the app this section. 40 of all municipal nd zoning ordina ntroduction of a nds, or lands lyin	g board shall pro proval of those su :27-6.10 In order lities in the count ances of the muni ny revision or an ag within 200 feet	wide for the ubdivisions that county y, each icipality in effect nendment of t of a municipal



		Authonity that	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)		If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable
given to the county planning board at l a copy of the official notice of the publi	c hearing together	with a copy of the prope	osed ordinance.		ertified mail of
The Planning Board is responsible for Environmental Protection	these requirements No	in compliance with Cha	<i>apter 30, Article</i> No	IX.	
Comment:	INO	-	NU	-	-
Flood Damage Prevention	Yes	Federal, State &	Yes	Yes	2021-Green
<ul> <li>Comment:</li> <li>The NJ State Law Flood Area Control . federal acts to support minimization of floodplain ordinances of each municipue the NFIP requires a floodplain ordinance effective June 20, 2016.</li> <li>The Zoning Official is responsible for t.</li> <li>It is the purpose of this chapter to pron due to flood conditions in specific area.</li> <li>a. Protect human life and he</li> <li>b. Minimize expenditure of p</li> <li>c. Minimize the need for res the general public;</li> <li>d. Minimize damage to publ streets, bridges located in a</li> </ul>	flood losses. They ulity must be review ce. Regulations for his ordinance in co tote the public heal s by provisions dest calth; public money for co cue and relief effor ness interruptions; ic facilities and util	do not require local ad eed for compliance with r the Flood Control Ha: mpliance with Chapter th, safety, and general v igned to: https://with.com/ ts associated with flood	option but as enj these regulation zards Act were a 25. welfare, and to n cts; ing and general.	forced by the NJE 1s. In addition, po Idopted in 2007 a ninimize public an ly undertaken at t	DEP, the articipation in nd amended nd private loss he expense of
<ul> <li>f. Help maintain a stable tax as to minimize future flood b</li> <li>g. Ensure that potential buy</li> <li>h. Ensure that those who oc</li> <li>The ordinance requires update to inclu</li> </ul>	: base by providing blight areas; ers are notified that cupy the areas of sp	for the second use and t property is in an area pecial flood hazard assu	of special flood ime responsibili	hazard; and	
<ul> <li>f. Help maintain a stable tax as to minimize future flood flood</li> <li>g. Ensure that potential buy</li> <li>h. Ensure that those who occ</li> <li>The ordinance requires update to inclu</li> <li>Wellhead Protection</li> </ul>	: base by providing blight areas; ers are notified that cupy the areas of sp	for the second use and t property is in an area pecial flood hazard assu	of special flood ime responsibili	hazard; and	
<ul> <li>f. Help maintain a stable tax as to minimize future flood to g. Ensure that potential buy</li> <li>h. Ensure that those who oc</li> <li>The ordinance requires update to inclu</li> <li>Wellhead Protection</li> </ul>	: base by providing blight areas; ers are notified tha cupy the areas of sp de the state mandat No	for the second use and t property is in an area pecial flood hazard assu	of special flood ime responsibilit ent. No	hazard; and ty for their action	
<ul> <li>f. Help maintain a stable tax as to minimize future flood l</li> <li>g. Ensure that potential buy</li> <li>h. Ensure that those who occ</li> <li>The ordinance requires update to inclu</li> <li>Wellhead Protection</li> <li>Comment:</li> <li>Emergency Management</li> </ul>	t base by providing blight areas; ers are notified that cupy the areas of sp de the state mandat	for the second use and t property is in an area pecial flood hazard assu	of special flood ume responsibilit ent.	hazard; and ty for their action	
<ul> <li>f. Help maintain a stable tax as to minimize future flood to g. Ensure that potential buy</li> <li>h. Ensure that those who oce</li> <li>The ordinance requires update to inclu</li> </ul> Wellhead Protection Comment: Emergency Management Comment:	: base by providing blight areas; ers are notified that cupy the areas of sp de the state mandat No No	for the second use and t property is in an area pecial flood hazard assu	of special flood ume responsibili ent. No No	hazard; and ty for their action	
<ul> <li>f. Help maintain a stable tas as to minimize future flood l</li> <li>g. Ensure that potential buy</li> <li>h. Ensure that those who occ</li> <li>The ordinance requires update to inclu</li> </ul> Wellhead Protection Comment: Emergency Management Comment:	: base by providing blight areas; ers are notified tha cupy the areas of sp de the state mandat No	for the second use and t property is in an area pecial flood hazard assu	of special flood ime responsibilit ent. No	hazard; and ty for their action	
<ul> <li>f. Help maintain a stable tax as to minimize future flood l</li> <li>g. Ensure that potential buy</li> <li>h. Ensure that those who oc</li> <li>The ordinance requires update to inclu</li> </ul> Wellhead Protection          Comment:         Comment:         Climate Change         Comment:	: base by providing blight areas; ers are notified that cupy the areas of sp de the state mandat No No	for the second use and t property is in an area pecial flood hazard assu	of special flood ume responsibili ent. No No	hazard; and ty for their action -	
<ul> <li>f. Help maintain a stable tax as to minimize future flood l</li> <li>g. Ensure that potential buy</li> <li>h. Ensure that those who oc</li> <li>The ordinance requires update to inclu</li> </ul> Wellhead Protection          Comment:         Comment:         Climate Change         Comment:	: base by providing blight areas; ers are notified that cupy the areas of sp de the state mandat No No	for the second use and t property is in an area pecial flood hazard assu	of special flood ume responsibili ent. No No	hazard; and ty for their action -	
<ul> <li>f. Help maintain a stable tas as to minimize future flood l</li> <li>g. Ensure that potential buy</li> <li>h. Ensure that those who occ</li> <li>The ordinance requires update to inclu</li> <li>Wellhead Protection</li> <li>Comment:</li> <li>Emergency Management</li> <li>Comment:</li> <li>Climate Change</li> <li>Comment:</li> <li>Disaster Recovery Ordinance</li> </ul>	: base by providing blight areas; ers are notified that cupy the areas of sp de the state mandat No No	for the second use and t property is in an area pecial flood hazard assu	of special flood ume responsibilit ent. No No	hazard; and ty for their action -	
<ul> <li>f. Help maintain a stable tas as to minimize future flood li o g. Ensure that potential buy h. Ensure that those who oc- the ordinance requires update to inclu</li> <li>Wellhead Protection</li> <li>Comment:</li> <li>Comment:</li> <li>Climate Change</li> <li>Comment:</li> <li>Disaster Recovery Ordinance</li> <li>Comment:</li> </ul>	: base by providing blight areas; ers are notified that cupy the areas of sp de the state mandat No No	for the second use and t property is in an area pecial flood hazard assu	of special flood ume responsibilit ent. No No	hazard; and ty for their action -	
<ul> <li>f. Help maintain a stable tas as to minimize future flood l</li> <li>g. Ensure that potential buy</li> <li>h. Ensure that those who occ</li> <li>The ordinance requires update to inclu</li> <li>Wellhead Protection</li> <li>Comment:</li> <li>Emergency Management</li> <li>Comment:</li> <li>Climate Change</li> <li>Comment:</li> <li>Disaster Recovery Ordinance</li> <li>Comment:</li> <li>Disaster Reconstruction Ordinance</li> </ul>	: base by providing blight areas; ers are notified that cupy the areas of sp de the state mandat No No No	for the second use and t property is in an area pecial flood hazard assu	of special flood ume responsibilit ent. No No No	hazard; and ty for their action - - -	
<ul> <li>f. Help maintain a stable tax as to minimize future flood flood g. Ensure that potential buy</li> <li>h. Ensure that those who occurse that those who occurse on the ordinance requires update to inclu</li> <li>Wellhead Protection</li> <li>Comment:</li> <li>Comment:</li> <li>Climate Change</li> <li>Comment:</li> <li>Disaster Recovery Ordinance</li> <li>Comment:</li> <li>Disaster Reconstruction Ordinance</li> <li>Comment:</li> <li>Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]</li> </ul>	: base by providing blight areas; ers are notified that cupy the areas of sp de the state mandat No No No No Yes	for the second use and t property is in an area becial flood hazard assu ted freeboard requireme - - - - County & Local	of special flood ume responsibili ent. No No No No	hazard; and ty for their action - - - Yes	S. 
<ul> <li>f. Help maintain a stable tas as to minimize future flood lines og. Ensure that potential buy h. Ensure that those who occurs the ordinance requires update to inclu</li> <li>Wellhead Protection</li> <li>Comment:</li> <li>Emergency Management</li> <li>Comment:</li> <li>Climate Change</li> <li>Comment:</li> <li>Disaster Recovery Ordinance</li> <li>Comment:</li> <li>Disaster Reconstruction Ordinance</li> <li>Comment:</li> <li>Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]</li> <li>Comment: The Township Committee and Enginee.</li> <li>Removal Chapter 26 – purpose to control soil eros provisions for surface water retention and drainage health, convenience and general welfare of the control</li> </ul>	t base by providing blight areas; ers are notified that cupy the areas of sp de the state mandat No No No No Yes ring Department is tion and sediment d the and for the protes	for the second use and t property is in an area becial flood hazard assu- ted freeboard requiremed - - - County & Local responsible for these on lamages and related emo	of special flood ume responsibili ent. No No No No No vidinances in con vironmental dam	hazard; and ty for their action - - - Yes pliance with Soil	s. - - - - - - - - - - - - -
<ul> <li><i>f. Help maintain a stable tax as to minimize future flood l</i></li> <li><i>g. Ensure that potential buy</i></li> <li><i>h. Ensure that those who occ</i></li> </ul>	t base by providing blight areas; ers are notified that cupy the areas of sp de the state mandat No No No No Yes ring Department is tion and sediment d the and for the protes	for the second use and t property is in an area becial flood hazard assu- ted freeboard requiremed - - - County & Local responsible for these on lamages and related emo	of special flood ume responsibili ent. No No No No No vidinances in con vironmental dam	hazard; and ty for their action - - - Yes pliance with Soil	s. - - - - - - - - - - - - -

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;



Union and the Chine UMD

		Authority that		been integra	s of the HMP ted into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
the general location and extent of forest water supply, sanitary and drainage fac important to the development of the cou- municipalities within the county in any r advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be of The Planning Board is responsible for th September 2008.	ilities, or the prote- nty. The county plo- natters whatsoeven rs with respect to s Land Use Law (M and requires that consistent with the	ection of urban develop anning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr	other features as eration of the lock county master pl ns and budgets fo 55D-28 provides n and update it ev om a presumption	may be al an and to or capital the required very 6 years. n of validity.
Capital Improvement Plan	No	-	No	-	-
Comment:					
Disaster Debris Management Plan	No	-	No	-	2021-Green- 007
Comment:					
Floodplain or Watershed Plan	No	-	No	-	-
Comment:					
Stormwater Management Plan	Yes	Local	Yes	Yes	-
design and performance standards for n include groundwater recharge, runoff qu consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge,	ew (proposed) dev uantity controls, an tormwater manag of stormwater pip stormwater runof	nd runoff quality contro ement techniques includ es, preserving natural of f quantity control, storr	nd performance ols. The rules em ding minimizing drainage feature mwater runoff qu	standards for new phasize, as a prin disturbance, mini s, etc. The rules a uality control, ana	v development nary mizing lso set forth l the prohibition
<ul> <li>design and performance standards for n include groundwater recharge, runoff que consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge, of major development to be located with without prior authorization from the Deg</li> <li>The Planning Board is responsible for the set of the</li></ul>	ew (proposed) dev uantity controls, an tormwater manage of stormwater pip stormwater runof in or to discharge partment under the his plan.	velopment. The design a nd runoff quality contro ement techniques includ es, preserving natural d ff quantity control, storr runoff from the major d	ind performance ols. The rules em ding minimizing drainage feature mwater runoff qu development into ontrol Act Rules	standards for new phasize, as a prin disturbance, mini s, etc. The rules a uality control, and o a 300-foot ripart	v development nary mizing lso set forth l the prohibition
design and performance standards for n include groundwater recharge, runoff qu consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge, of major development to be located with without prior authorization from the De The Planning Board is responsible for the Stormwater Pollution Prevention Plan Comment:	ew (proposed) dev uantity controls, an tormwater manage of stormwater pip stormwater runog in or to discharge partment under the his plan. No	velopment. The design a nd runoff quality contro ement techniques includ es, preserving natural a ff quantity control, stor runoff from the major a e Flood Hazard Area C	nd performance ols. The rules em ding minimizing drainage feature mwater runoff qu development into iontrol Act Rules No	standards for new phasize, as a prin disturbance, mini s, etc. The rules a tality control, ana o a 300-foot ripar, , N.J.A.C. 7:13.	w development hary mizing Iso set forth I the prohibition ian zone -
design and performance standards for m include groundwater recharge, runoff qu consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge, of major development to be located with without prior authorization from the Dep • The Planning Board is responsible for the Stormwater Pollution Prevention Plan	ew (proposed) dev uantity controls, an tormwater manage of stormwater runog in or to discharge partment under the his plan. No harge Elimination 2, 2004, NJ Registe off. The NJPDES 1 the NJPDES 1 the seven systems, kno such as universiti am establishes the set sources. The Si dlife feeding, prop linance(s); requiril	velopment. The design a nd runoff quality contro ement techniques includ es, preserving natural a ff quantity control, storr runoff from the major a e Flood Hazard Area C 	and performance ols. The rules em ding minimizing drainage feature mwater runoff qu development into 'ontrol Act Rules <b>No</b> gulation Program s are intended to tory program for issuance of pern tate, interstate a rements that mu. ments include mu ; the development e activities (such	standards for new phasize, as a prin disturbance, mini s, etc. The rules a tality control, ana o a 300-foot ripar, , N.J.A.C. 7:13. (NJPDES) rule address and redu- existing stormwo tits to entities than nits must be secur nd federal agenci st be implemented easures such as: t nt of a municipal as street sweepin	v development hary mizing lso set forth l the prohibition ian zone 
design and performance standards for n include groundwater recharge, runoff qu consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge, of major development to be located with without prior authorization from the Deg • The Planning Board is responsible for th Stormwater Pollution Prevention Plan Comment: • The Phase II New Jersey Pollutant Disc 7:14A) were published in the February associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from th ordinances (litter control, pet waste, wil management plan and implementing ord basin cleaning); implementing solids an	ew (proposed) dev uantity controls, an tormwater manage of stormwater runog in or to discharge partment under the his plan. No harge Elimination 2, 2004, NJ Registe off. The NJPDES 1 the NJPDES 1 the seven systems, kno such as universiti am establishes the set sources. The Si dlife feeding, prop linance(s); requiril	velopment. The design a nd runoff quality contro ement techniques includ es, preserving natural a ff quantity control, storr runoff from the major a e Flood Hazard Area C 	and performance ols. The rules em ding minimizing drainage feature mwater runoff qu development into 'ontrol Act Rules <b>No</b> gulation Program s are intended to tory program for issuance of pern tate, interstate a rements that mu. ments include mu ; the development e activities (such	standards for new phasize, as a prin disturbance, mini s, etc. The rules a tality control, ana o a 300-foot ripar, , N.J.A.C. 7:13. (NJPDES) rule address and redu- existing stormwo tits to entities than nits must be secur nd federal agenci st be implemented easures such as: t nt of a municipal as street sweepin	v development hary mizing lso set forth l the prohibition ian zone 
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		Authority that	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)		If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and structures, and site preparation. This la	enlargement of but	ildings or structures, an	nd excavation, gr	ading, shore prot	ection
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:		1			
Tourism Plan	No	-	No	-	-
Comment:		I			
Business Development Plan	No	-	No	-	-
Comment:					
Other Plans	Yes	Local	No	No	No
Comment: • The Planning Board is responsible for the Housing Element and Fair Share Plan, and and Fair Share Plan, and and fair Share Plan, and and and fair Share Plan, and		bliance with Green Tow	nship Land Use	Plan, December .	2005 and
Response/Recovery Planning Comprehensive Emergency Management Plan					
<ul> <li>(CEMP) / Emergency Operations Plan (EOP)</li> <li>Comment:         <ul> <li>Each county and municipality in the Stat necessary to implement the plan. Each I Emergency Planning Guidelines have b subsequent scheduled review of the Stat</li> <li>The Office of Emergency Management i</li> </ul> </li> </ul>	Emergency Operat een adopted by the e Emergency Oper	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c	nted no later than ency Managemen 222, s.19.	n one year after th	e State
Threat & Hazard Identification & Risk	No	_	No	-	-
Assessment (THIRA) Comment:					
Post-Disaster Recovery Plan	No		No		
v	110	-	110	-	-
Comment:	),		),		
Continuity of Operations Plan	No	-	No	-	-
Comment:	).		).		
Public Health Plan	No	-	No	-	-
Comment:					
Other	No	-	No	-	-
Comment:					





# Table 9.9-4. Development and Permitting Capability

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

### **ADMINISTRATIVE AND TECHNICAL CAPABILITY**

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

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Green Township Planning Board
Mitigation Planning Committee	No	-
Environmental Board / Commission	Yes	Green Township Environmental Advisory Committee
Open Space Board / Committee	Yes	Open Space Advisory Committee
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Smart911
Maintenance program to reduce risk	Yes	The Township works to identify and remove trees on municipal property that could affect electric power
Mutual aid agreements	Yes	Fire, First Aid
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Township Engineer/Township Planner
Engineers or professionals trained in building or infrastructure construction practices	Yes	Township Engineer
Planners or engineers with an understanding of natural hazards	Yes	Township Engineer/Township Planner
Staff with training in benefit/cost analysis	Yes	Township Engineer
Staff with training in green infrastructure	No	-
Staff with education/knowledge/training in low impact development	No	-
Surveyor	Yes	Township Engineer
Stormwater engineer	Yes	Township Engineer
Personnel skilled or trained in GIS applications	Yes	Township Engineer
Local or state water quality professional	No	-
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	OEM
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	Yes	Peter Sklannik
Resilience Officer	No	-

## Table 9.9-5. Administrative and Technical Capabilities





Staff/Personnel Resource	Available?	Department/Agency/Position
Other: NFIP Floodplain Administrator	Yes	Craig Bollmann, Zoning Officer

## FISCAL CAPABILITY

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

## Table 9.9-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	N/A
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
Incur Debt through Private Activity Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	Yes
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 Green.

## Table 9.9-7. 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?	No
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	No
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.	No

#### **COMMUNITY CLASSIFICATIONS**

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

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (Fire ISO Protection Class)	Yes	05/5Y	July 2014

## Table 9.9-8. Community Classifications





Program	Participating?	Classification	Date Classified
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	Yes	None	Registered 12/16/2016

*N*/*A* = *Not applicable. NP* = *Not participating* 

#### **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.

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

### Table 9.9-9. Adaptive Capacity

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. At this time, the administration is not 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 9.9-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Municipal Engineer





Criterion	Response
Who is your floodplain administrator? (name, department/position)	Cory Stoner
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	June 2016
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets minimum requirements.
When was the most recent Community Assistance Visit or Community Assistance Contact?	February 16, 1994
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?	He would consider attending continuing education and 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
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	9 policies \$2,630,000 insurance in force \$6,920 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	2 claims \$11,652 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

\*According to FEMA statistics as of October 13, 2020 (Policy/Claims Data) Reference: FEMA 2020

## ADDITIONAL AREAS OF EXISTING INTEGRATION

- Green Township Environmental Committee: The Environmental Advisory Committee provides advice and recommendations to the Planning Board on environmental impacts of land use in the municipality in an effort to ensure that planning reflects consideration of natural resources and quality of life. Groundwater preservation is the current focus of activity.
- Land Use Board: The Green Township Land Use Board has the following responsibilities:
  - o Adoption of a Master Plan every ten years;
  - Subdivision control and site plan review for permitted uses;
  - Recommendations as to the official map of the Township;
  - Conditional use applications;
  - Recommendations as to the zoning ordinance or amendments;
  - Review of Capital Improvement Projects;
  - o Variances under certain circumstances in connection with site plans and subdivisions.



- Hear and decide Appeals of decisions of the administrative officer enforcing the zoning ordinance;
- Hear and decide for Interpretations of the zoning map or ordinance;
- Hear and decide Bulk or "C" Variances; A "c" variance is if it is separate from a site plan, subdivision or conditional use (i.e., residential permit that doesn't require a subdivision or site plan)
- Hear and decide Use or "D" Variances: example of a "d" variance; Use of principle structure; Expansion of non-conforming use; deviation from a specification of standard of a conditional use; Increase in permitted floor area ration; Increase in permitted density; Height greater than 10 feet or 10% of the maximum height permitted.
- May direct the Issuance of a Permit for a building or structure in the bed of a mapped street or public drainage way, flood control basin or public area. A building structure not related to a street.
- **Township Website:** Green Township hosts a municipal website (http://www.greentwp.com/index.cfm) which includes community information, news, and announcements.

## **OPPORTUNITIES FOR FUTURE INTEGRATION**

- **Disaster Debris Management Plan:** The Township intends to develop a Disaster Debris Management Plan (2021-Green-007).
- Flood Damage Prevention Ordinance: The Township's flood damage prevention ordinance lacks the state mandated freeboard requirement. The Township will update the ordinance to include freeboard (2021-Green-011).

# 9.9.5 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 Green'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 9.8-11 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 9.9-11	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 <sup>rd</sup> and 24th.	Although the County was impacted, the Township did not receive 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.	Additional cost for equipment and overtime

Source: FEMA 2020, NOAA NCEI 200

# 9.9.6 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 Green 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 Green 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 Green has significant exposure.

## **REPETITIVE FLOOD LOSSES**

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

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

Source: FEMA 2019

## **CRITICAL FACILITIES AND LIFELINES**

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

## Table 9.9-12. Critical Facilities and Lifelines Flood Exposure

		Expo	sure
Name	Туре	1% Event	0.2% Event
21-15 Tranquility Mill Dam	Dam	Х	Х
21-52 Lake Tranquility Dam	Dam	Х	Х
21-91 Tranquility Church Dam	Dam	Х	Х

Source: Sussex County Planning Partnership, 2020 Note:

\*Identified lifeline

## IDENTIFIED ISSUES AND PROBLEM AREAS

The jurisdiction has identified the following vulnerabilities within their community:

- Road flooding on Whitehall Road near Washers Pond (40-58'29.58" N / 74-45'32.63" W) Roadway will be raised in 2021 as part of a road improvement project.
- Lake Tranquility properties are inundated with ground water. A drainage study of the entire lake community is warranted.
- The Township has a lack of stand pipes at draft stations for emergency equipment.
- Basements of homes in the Township flood during periods of heavy rain and the residents do not have pumps to remove the water.
- Pequest River experiences streambank erosion.
- The Township lacks outreach to address hazards, emergency preparedness, and hazard mitigation.
- The Township lacks a Disaster Debris Management Plan.
- Hunts School Road has an undersized drainage pipe that contributes to flooding.



- Backup power sources are necessary to maintain critical services for critical facilities. The Tranquility
  Post Office and the Greendell Post Office lack backup power. The Township owns both properties.
- No mapping exists of the drainage system in Green Township to help identify and solve problem areas.

# 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 Green 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 Green. The Township of Green 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 Green agreed with the calculated hazard rankings.

# Table 9.9-13. Township of Green Hazard Ranking

Dam Failure	Disease Outbreak Drought Earthquake				Flood	Geologic			
Medium	Medium	Medium	Lo	Low		Low		Medium	Low
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter		vere ather	Severe Winter Weather	Wildfire		
Medium	High	Medium	High	Н	igh	High	Low		

# 9.9.7 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 9.8-15 and Table 9.8-16 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 9.9-14. Status of Previous HMP Mitigation Actions

20	)16 Action Number Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	the 2021 HMP odate? Enter 2021 HMP Action #
Green Twp- 1	Ensure continuity of operations at critical facilities and municipal buildings. Identified at this time: Add or replace	OEM Coordinator Fire Department	Complete	





			Status (In Progress, No	Include in the 2021 HMP Update?				
20	016 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #			
	permanent generators at critical facilities (municipal building, Road Dept., Fire Station, Squad Building)							
Green Twp- 2	Purchase and install repeaters on two existing towers in the Township. This will increase the level of emergency communities both inter and intra-agency.	OEM Coordinator Fire Department	No progress					
Green Twp- 3	Ensure continuity of operations: Purchase portable generators (12) to ensure those in need have the life support needed during and after an event.	First Aid Captain, Fire Chief, Administrator (Engineer)	Complete					
Green Twp- 4	Add stand pipes at draft sites – 2 or more throughout Township	Administrator OEM Coordinator	No progress	Х	2021-Green- 003			
Green Twp- 5	Purchase/replace portable water pumps (12) to ensure those who experience flooding in conjunction with loss of power are adequately protected from loss of structure and/or mold issues.	Fire Chief, Administrator	No progress	Х	2021-Green- 004			
Green Twp- 6 (old #3)	Work with private land owners to stabilize stream bank(s) and augment Pequest River	Township Engineer	No Progress	х	2021-Green- 005			
Green Twp- 7 (old #4)	Retrofit impact resistant windows and shutters on municipal building located on Kennedy Road as funding permits	DPW	No Progress					
Green Twp- 8 (old #5)	Retrofit an external frame to mitigate straight line winds to PO building located on Municipal Rd as funding permits	Township Administrator	No Progress					
Green Twp- 9 (old #6)	Retrofit roof on remaining building to meet current high wind standards located at Trinca Airport on Airport Road	Township Administrator	No Progress					
Green Twp- 10 (old #7)	Implement a storm water runoff management system for 350 homes in Lake Tranquility area as funding and private cooperation permit	DPW	No Progress	Х	2021-Green- 002			
Green Twp- 11	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	OEM Coordinator, in coordination with SCDEM	No Progress	х	2021-Green- 006			

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			Status (In Progress, No	Include in the 2021 HMP Update?				
20	016 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #			
(old #8)								
Green Twp- 12 (new)	Review the current hazard mitigation plan and other hazard analysis prior to land use, zoning changes and development permitting.	Township Engineer and Planner	Ongoing Capability					
Green Twp- 13 (new)	Provide protection to buildings/infrastructure in high hazard areas in the Township	Township Engineer and Planner	No Progress					
Green Twp -14 (old #1)	Work with school to retrofit roof to meet current high wind standards on Green Hills School located on Mackerley Road as funding permits.	Township Administrator, School Board	Complete					
Green Twp -15 (old #2)	Implement Fire Wise	OEM Coordinator	No Progress					

In addition to the above progress, the Township of Green 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 Green 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 Green 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 9.8-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Green 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 9.8-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.9-15. 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- Green-	Whitehall Road Roadway Elevation	<b>Problem</b> : Road flooding on Whitehall Road near Washers Pond restricts normal travel and greatly effects emergency access. During Hurricane Irene the road surface was covered for months by six feet of water. In high rain years the roadway is partially flooded also creating a driving hazard.	Existing	Flood, xisting Severe	2	Engineer, DPW	HMGP, BRIC,	Reduct ion in roadwa	High	1 ye	Hig	SIP	рр
Green- 001		<b>Solution:</b> A four hundred- and fifty-foot (450') section of the road will need to reconstructed. The area of flooding will need to be raised approximately eighteen inches (18") to mitigate the semi-annual flooding. The slope along Washers Pond will require grading and a guide rail needs to be replaced.		Weather	Weather		DI W	Township budget	y floodin g	ç	ar	h	
		<b>Problem</b> : Lake Tranquility properties are inundated with water runoff and ground water.											
2021- Green- 002	Lake Tranquility Drainage Study	<b>Solution:</b> The Township will conduct drainage study of the entire lake community and determine if actions can be taken to address groundwater flooding in Lake Tranquility. Once actions are identified, the Township will carry out the cost-effective options. A potential action would be to implement a storm water runoff management system for 350 homes in Lake Tranquility area as funding and private cooperation permit. Drainage easements need to be created allowing the Township the authorization to access and maintain.	Existing	Flood	2, 4, 5	Engineer	HMGP, BRIC, FMA, Township budget	Better underst anding of floodin g and address ing of flood risk	High	Wi thi 5 ye ars	Hig h	LPR, SIP	PP, SP
2021- Green- 003	Stand Pipes at Draft Sites	<b>Problem</b> : Water systems are limited in Green Township therefore the need for a water source to combat fires is paramount. The Township has a lack of stand pipes at draft stations for emergency equipment. <b>Solution:</b> Additional areas for the	N/A	Hazardous Materials, Wildfire	3, 6	Administrat or, OEM Coordinator	HMGP, Township budget	Increas ed emerge ncy respon se	Medi um	Wi thi n 5 ye	Hig h	SIP	ES
		solution: Additional areas for the installation of a stand pipe or draft stations will be researched and						capabil ity.		ars			





# Section 9.9 – Township of Green

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				
		determined. Once the locations are established funding and or easements will need to be secured.															
2021-	Doutskie Woter	<b>Problem</b> : Basements of homes in the Township flood during periods of heavy rain and the residents do not have pumps to remove the water.				Fire Chief.	ire Chief	Increas ed emerge	Madi	Wi thi	Ме						
Green- 004	Portable Water Pumps	<b>Solution:</b> Purchase/replace portable water pumps (12) to ensure those who experience flooding in conjunction with loss of power are adequately protected from loss of structure and/or mold issues.	N/A	Flood	Flood	od 2,5	2,5 Administrat or	Township budget	ncy respon se capabil ity.	Medi um	n 5 ye ars	diu m	SIP	ES			
2021- Green- 005	Pequest River	<b>Problem</b> : The Pequest River experiences streambank erosion.	Existing									Erosio		Wi			
		<b>Solution:</b> Identify areas of the Pequest River where erosion and undermining of the river bank are occurring. Work with the Township Engineer and private land owners in developing plans to stabilize these locations.		ng Flood, Severe Weather	Severe	1, 2	Township Engineer	HMGP, BRIC, Township budget	n and flood issues reduce d	Medi um	thi n 5 ye ars	Hig h	NSP	NR			
		<b>Problem</b> : The Township lacks outreach to address hazards, emergency preparedness, and hazard mitigation.					OEM Coordinator										
2021- Green- 006	All Hazards Outreach	<b>Solution:</b> Develop and conduct all- hazards public education and outreach program for hazard mitigation and preparedness. Utilize Township social media outlets to communicate with township residents.	New & Existing	All Hazards		in	Township budget	Educat ed public	Low	1 ye ar	Hig h	ЕАР	PI				
		<b>Problem</b> : The Township lacks a Disaster Debris Management Plan.						Increas ed									
2021- Green- 007	Disaster Debris Management Plan	<b>Solution:</b> The Township will develop and adopt a Disaster Debris Management Plan.	Existing	All Hazards	2, 5	, 5 OEM, Public Works	Township budget	disaste r respon se capabil ities	Staff time	l ye ar	Hig h	LPR	ES				
2021- Green-	Hunts School Road	<b>Problem:</b> Hunts School Road has an undersized drainage pipe that contributes to flooding.	Existing	Flood, Severe	2	Public Works	HMGP, BRIC, Toymohin	Reduct ion in flood	\$75,0 00	Wi thi n 5	Hig	SIP	SP				
008	Ruau	<b>Solution:</b> The Township will replace and upsize the drainage pipe.		Weather		W OFKS	Township budget	risk	00	ye ars	h						



# Section 9.9 – Township of Green

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- Green- 009	Post Office Backup Power	Problem: Backup power sources are necessary to maintain critical services for critical facilities. The Tranquility Post Office and the Greendell Post Office lack backup power. The Township owns both properties. Solution: The Township will consider the installation of backup generators at each site. The Engineer will research what size generator is needed to power the facilities. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the facilities.	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	2, 6	OEM, Engineer, Administrat ion	FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Municipal Budget	Ensure s continu ity of operati ons of Post Office	\$50,0 00 per gener ator	Wi thi 5 ye ars	Hig h	SIP	ES
2021- Green- 010	Drainage System Mapping	<b>Problem:</b> No mapping exists of the drainage system in Green Township to help identify and solve problem areas. <b>Solution:</b> The Township will contract with an engineering firm to create detailed mapping of all drainage infrastructure.	Existing	Flood, Severe Weather	4, 5	Public Works	Township budget	Increas ed capabil ity to identif y issues and needs for improv ement	High	Wi thi 5 ye ars	Me diu m	LPR	SP
2021- Green- 011	Flood Damage Prevention Ordinance Update	<b>Problem:</b> The Township's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.	New	Flood	2	FPA, Administrat ion	Township budget	Meet state standar ds, reduce future flood risk	Staff time	6 m on ths	Hig h	LPR	PR





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s ) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		<b>Solution:</b> The Township will update the Flood Damage Prevention Ordinance to include the freeboard requirement.											

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:

FMAFlood Mitigation Assistance Grant ProgramHMGPHazard Mitigation Grant Program

BRIC Building Resilient Infrastructure and Communities Program

#### Timeline:

*The time required for completion of the project upon implementation* 

#### <u>Cost:</u>

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.



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- Green-001	Whitehall Road Roadway Elevation	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Green-002	Lake Tranquility Drainage Study	0	1	0	1	1	1	0	1	1	0	1	0	1	1	9	High
2021- Green-003	Stand Pipes at Draft Sites	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Green-004	Portable Water Pumps	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Green-005	Pequest River	0	1	1	1	1	0	0	1	1	1	1	0	1	1	10	High
2021- Green-006	All Hazards Outreach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Green-007	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021- Green-008	Hunts School Road	1	1	0	1	1	1	0	1	0	0	1	0	1	1	9	High
2021- Green-009	Post Office Backup Power	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Green-010	Drainage System Mapping	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High

Table 9.9-16. Summary of Evaluation and Action Priorities

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.



A



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

Table 9.9-17.	<b>Analysis of Mitigation</b>	Actions by Hazard	and Category
10010 717 271	Button	needed by made a	and onlogory

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

high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



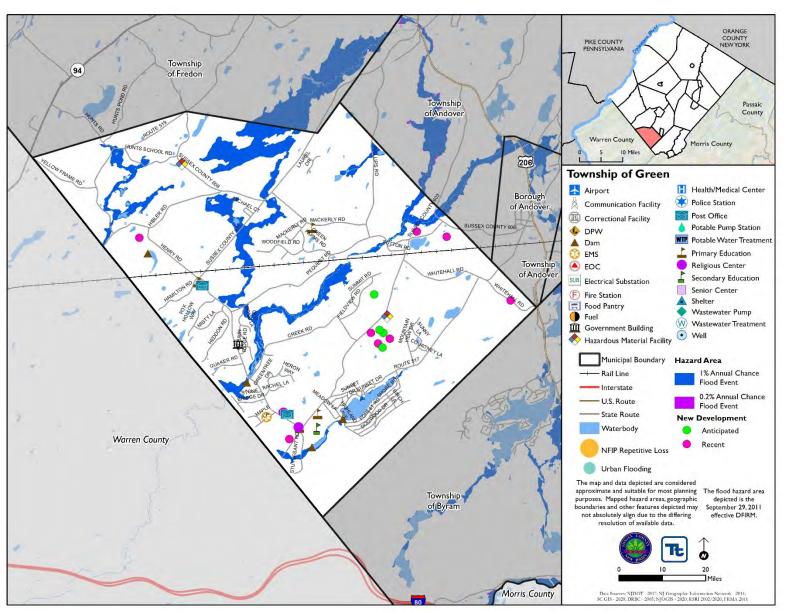


Figure 9.9-1. Township of Green Hazard Area Extent and Location Map 1





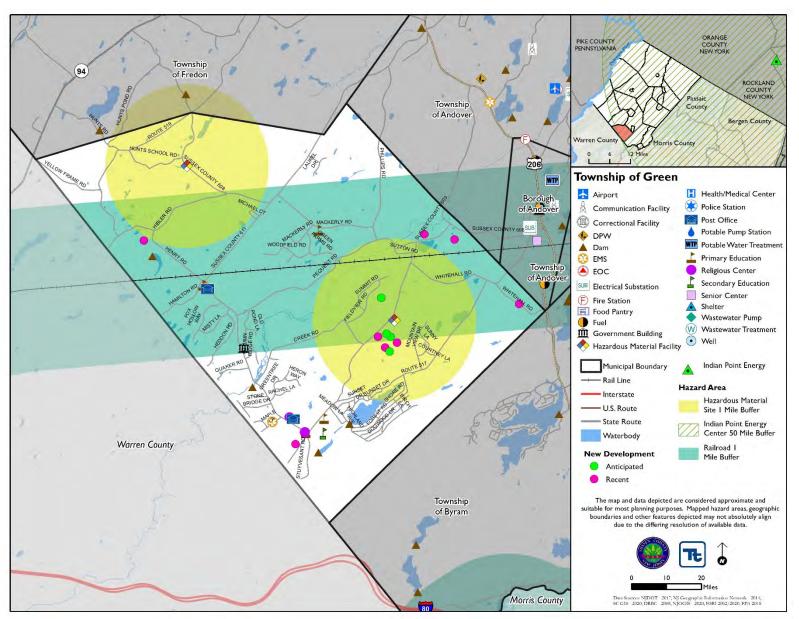


Figure 9.9-2. Township of Green Hazard Area Extent and Location Map 2



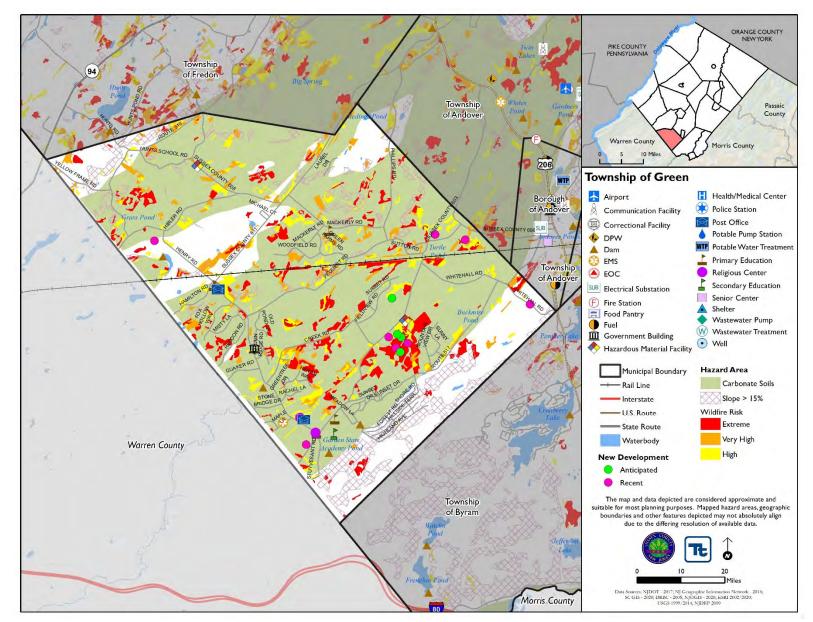


Figure 9.9-3 Township of Green Hazard Area Extent and Location Map 3





		Action V	Works	sheet		
Project Name:	Whitehall Road Ro	Whitehall Road Roadway Elevation				
Project Number:	2021-Green-001					
Risk / Vulnerability						
Hazard(s) of Concern:	Flood, Severe Weat	her				
Description of the Problem:	effects emergency a six feet of water. In hazard.	access. Du high rain	ring H	ear Washers Pond restricts n urricane Irene the road surfa the roadway is partially flood	ce was covered for months by	
Action or Project Intended						
Description of the Solution:	of flooding will nee	d to be rai	ised ap	proximately eighteen inches	ed to reconstructed. The area (18") to mitigate the semi- ding and a guide rail needs to	
Is this project related to a	Critical Facility?	Yes		No 🖂		
Level of Protection:	18" elevatio	n		mated Benefits ses avoided):	Reduction in roadway flooding	
Useful Life:	50 years		Goals Met:		3	
Estimated Cost:	High		Mitigation Action Type:		Structure and Infrastructure Project	
Plan for Implementation						
Prioritization:	High			red Timeframe for lementation:	Within 2 years	
Estimated Time Required for Project Implementation:	1 year		Pote	ential Funding Sources:	HMGP, BRIC, Municipal budget	
Responsible Organization:	Engineer, Roads Department		to be	ll Planning Mechanisms e Used in lementation if any:	Hazard mitigation planning	
Three Alternatives Conside	ered (including No	Action)				
	Action			Estimated Cost	Evaluation	
	No Action			\$0	Problem continues.	
Alternatives:	Remove flood prone roadway			N/A	Loss of access to neighborhoods, increased emergency risk	
	Buyout properties that exist along flood prone roadways			\$Tens of Millions	Costly, loss of large portion of community	
Progress Report (for plan	naintenance)					
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Evaluation and Prioritization				
Project Name:	Whitehall Road Roadwa	y Elevation		
Project Number:	2021-Green-001			
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate		
Life Safety	1	Project will protect emergency access		
Property Protection	1	Project will protect roadway from flood damage		
Cost-Effectiveness	1			
Technical	1	The project is technically feasible		
Political	1			
Legal	1	The Township has the legal authority to complete the project		
Fiscal	0	Project requires funding support		
Environmental	1			
Social	1			
Administrative	1			
Multi-Hazard	1	Flood, Severe Weather		
Timeline	1	1 year		
Agency Champion	1	Engineer, Roads Department		
Other Community Objectives	1			
Total	13			
Priority (High/Med/Low)	High			





	Ac	tion W	orkshee	t	
Project Name:	Lake Tranquility Drain	Lake Tranquility Drainage Study			
Project Number:	2021-Green-002	2021-Green-002			
	Ris	k / Vul	nerabili	ty	
Hazard(s) of Concern:	Flood, Severe Weather	r			
Description of the Problem:	Lake Tranquility prop	erties a	ire inund	ated with water runo	ff and ground water.
	Action or Project				
Description of the Solution:	if actions can be taken actions are identified, action would be to imp in Lake Tranquility are	to add the Tov plemen ea as fu	ress grou wnship w t a storm nding an	Indwater flooding in l vill carry out the cost- water runoff manage d private cooperation	e community and determine Lake Tranquility. Once effective options. A potential ement system for 350 homes a permit. Drainage easements a to access and maintain.
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂	
Level of Protection:	TBD			ted Benefits avoided):	Reduction in flood risk in selected areas
Useful Life:	TBD by drainage study	у	Goals Met:		2, 4, 5
Estimated Cost:	TBD by study		Mitigation Action Type:		Local Plans and Regulations, Structure and Infrastructure Projects
	Plan f	or Imp	lementa		
Prioritization:	High		Desired Timeframe for Implementation:		Within 5 years
Estimated Time Required for Project Implementation:	5 years			ial Funding	HMGP, BRIC, FMA, municipal budget
Responsible Organization:	Engineer		Local Planning Mechanisms to be Used in Implementation if any:		Hazard mitigation planning, stormwater planning
	Three Alternatives (	Consid		cluding No Action) stimated Cost	
	Action	Evaluation			
Alternatives:	No Action			\$0	Current problem continues Costly and may not solve
Alter natives:	Elevate homes		\$200,000 per home		problems with access
	Buyout homes N/A Costly Progress Report (for plan maintenance)				
Date of Status Report:	Progress Rep	011 110	pian ill		
Report of Progress:					
Update Evaluation of the Problem and/or Solution:					



Action Worksheet				
Project Name:	Lake Tranquility Drainage Study			
Project Number:	2021-Green-002			
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate		
Life Safety	0			
Property Protection	1	Reduction in flooding risk		
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	Project would reduce flooding impacts.		
Administrative	0			
Multi-Hazard	1	Flood, Severe Weather		
Timeline	0			
Agency Champion	1	Engineering		
Other Community Objectives	1			
Total	8			
Priority (High/Med/Low)	Medium			





		Action V	Norks	sheet	
Project Name:	Stand Pipes at Draft	t Sites			
Project Number:	2021-Green-003				
Risk / Vulnerability					
Hazard(s) of Concern:	Hazmat, Wildfire				
Description of the Problem:				Township therefore the need as a lack of stand pipes at dra	for a water source to combat aft stations for emergency
Action or Project Intended					
Description of the Solution:				of a stand pipe or draft static established funding and or ea	
Is this project related to a	<b>Critical Facility?</b>	Yes		No 🖾	
Level of Protection:	To be determin	To be determined <b>Estimated Benefits</b> (losses avoided):		Fire hydrants and water lines maintained for emergency response	
Useful Life:	20 years		Goal	ls Met:	2
Estimated Cost:	Medium		Mitigation Action Type:		Structure and Infrastructure Project
Plan for Implementation					
Prioritization:	High			red Timeframe for lementation:	Within 5 years
Estimated Time Required for Project Implementation:	Within 5 years		Pote	ential Funding Sources:	HMGP, Township budget
Responsible Organization:	Administrator, OEM Coordinator	1	to b	ll Planning Mechanisms e Used in lementation if any:	Hazard mitigation, emergency management
Three Alternatives Conside		Action)			
	Action			Estimated Cost	Evaluation
Alternatives:	No Action Purchase tanker tru water			\$0 \$190,000	Problem continues. Slow emergency service response times.
	Develop contract with neighboring towns for fire response			N/A	Too slow of response times, towns may be unable
Progress Report (for plan i	naintenance)				
Date of Status Report:					
Report of Progress:					
Update Evaluation of the Problem and/or Solution:					





	Action Worksheet				
Project Name:	Stand Pipes at Draft Sites				
Project Number:	2021-Green-003				
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate			
Life Safety	1	Emergency response preserved to protect life			
Property Protection	1	Emergency response preserved to protect property			
Cost-Effectiveness	1				
Technical	1				
Political	1				
Legal	1				
Fiscal	0	Project requires funding support			
Environmental	1				
Social	1				
Administrative	1				
Multi-Hazard	1	Hazmat, Wildfire			
Timeline	0	Within 5 years			
Agency Champion	1	Administrator, OEM Coordinator			
Other Community Objectives	1				
Total	12				
Priority (High/Med/Low)	High				





Action Worksheet					
Project Name:	Pequest River				
Project Number:	2021-Green-005				
Risk / Vulnerability					
Hazard(s) of Concern:	Flood, Severe Weat	her			
Description of the Problem:	The Pequest River of	experience	es strea	mbank erosion.	
Action or Project Intended	for Implementatio	n			
Description of the Solution:	Description of the least locations. Identify areas of the Pequest River where erosion and undermining of the river bank are occurring. Work with the Township Engineer and private land owners in developing plans to tabilize these locations.				
Is this project related to a	<b>Critical Facility?</b>	Yes		No 🖂	
Level of Protection:	N/A			nated Benefits	Erosion and flood issues reduced
Useful Life:	1			ses avoided): s Met:	1.2
Estimated Cost:	1 year Medium				
Plan for Implementation	Medium		MIU	gation Action Type:	Natural Systems Protection
Prioritization:	High			red Timeframe for lementation:	Within 5 years
Estimated Time Required for Project Implementation:	1 year			ential Funding Sources:	HMGP, BRIC, Township budget
Responsible Organization:	Township Engineer		Mec	l Planning hanisms to be Used in lementation if any:	Hazard mitigation
Three Alternatives Conside	ered (including No	Action)			
	Action			Estimated Cost	Evaluation
	No Action			\$0	Problem continues.
Alternatives:	Retreat from area Creek			High	Costly, unpopular
	Levees along Creek			High	Not feasible/environmentally damaging, costly
Progress Report (for plan	naintenance)		•		
Date of Status Report:					
Report of Progress:					
Update Evaluation of the Problem and/or Solution:					

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	Action Worksheet				
Project Name:	Pequest River				
Project Number:	2021-Green-005				
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate			
Life Safety	0				
Property Protection	1	Project will protect properties from potential flood damage			
Cost-Effectiveness	1				
Technical	1				
Political	1				
Legal	0	Permitting likely required			
Fiscal	0	Project requires funding support			
Environmental	1				
Social	1				
Administrative	1				
Multi-Hazard	1	Flood, Severe Weather			
Timeline	0				
Agency Champion	1	Administration			
Other Community Objectives	1	Restore natural floodplain function			
Total	10				
Priority (High/Med/Low)	High				





	Α	ction W	orkshee	t		
Project Name:	Hunts School Road	Hunts School Road				
Project Number:	2021-Green-008	2021-Green-008				
Risk / Vulnerability						
Hazard(s) of Concern:	Flood, Severe Weath	er				
Description of the Problem:	Hunts School Road h	as an un	dersized	drainage pipe that co	ntributes to flooding.	
	Action or Projec	t Inten	ded for Ir	nplementation		
<b>Description of the</b> <b>Solution:</b> The Township Public Works Department will determine the proper size needed to adequately service Hunts School Road and will then replace and upsize the drainage pipe.						
Is this project related to a C Lifeline?	Critical Facility or	Yes		No 🖂		
Level of Protection:	TBD by size selected			ted Benefits avoided):	Reduction in flood risk	
Useful Life:	30 years		Goals Met:		2	
Estimated Cost:	\$75,000		Mitigation Action Type:		Structure and Infrastructure Projects	
	Plan	for Imp	lementa			
Prioritization:	High			l Timeframe for nentation:	Within 5 years	
Estimated Time Required for Project Implementation:	6 months		Potenti Sources	al Funding s:	HMGP, BRIC, municipal budget	
Responsible Organization:	Engineering		Mechar	lanning nisms to be Used ementation if any:	Hazard mitigation planning	
	Three Alternatives	Consid	ered (inc	cluding No Action)		
	Action		Es	stimated Cost	Evaluation	
A ] 4	No Action			\$0	Current problem continues	
Alternatives:	Elevate roadway		\$500,000		Costly and may not solve problem	
	Relocate roadwa Progress Rej		r nlan ma	N/A	Not possible	
Date of Status Report:		101) 1100	r plair ille			
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Action Worksheet				
Project Name:	Hunts School Road			
Project Number:	2021-Green-008			
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate		
Life Safety	1	Protects life from flooding.		
Property Protection	1	Protects culvert 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	0	Project would reduce flooding impacts		
Administrative	0			
Multi-Hazard	1	Flood, Severe Weather		
Timeline	0	Within 5 years		
Agency Champion	1	DPW		
Other Community Objectives	1			
Total	9			
Priority (High/Med/Low)	High			

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	Action	Worksheet		
Project Name:	Post Office Backup Power	Worksheet		
	2021-Green-009			
Project Number:				
Risk / Vulnerability	Severe Weather, Severe Win	ter Weether Hurrisone No	"Fostor	
Hazard(s) of Concern:				
Description of the Problem:	Backup power sources are n Tranquility Post Office and owns both properties.			
Action or Project Intended				
Description of the Solution:	The Township will consider will research what size gene purchase and install the sele backup power to the facilitie	rator is needed to power the cted generator and necessar	e facilitie	es. The Township will then
Is this project related to a	Critical Facility? Yes	🖾 No 🗌		
Level of Protection:	N/A	Estimated Benefits (losses avoided):		Ensures continuity of operations of Post Office
Useful Life:	20 years	Goals Met:		2, 6
Estimated Cost:	\$50,000 per generator	Mitigation Action Typ	e:	Structure and Infrastructure
Plan for Implementation	****,*** F- 8			Projects (SIP)
Prioritization:	High	Desired Timeframe fo	or	Within 5 years
Prioritization:		Implementation:		
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sou	irces:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget
Responsible	OEM, Engineer,	Local Planning Mecha	nisms	Hazard Mitigation,
Organization:	Administration	to be Used in		Emergency Management
Three Alternatives Conside	ered (including No Action)	Implementation if any	y:	
	Action	Estimated Cost		Evaluation
	No Action	\$0		Problem continues.
Alternatives:	Install solar panels	\$100,000	amo	eather dependent; need large ount of space for installation; xpensive if repairs needed
	needed			wildlife; expensive repairs if
Progress Report (for plan	maintenance)			
Date of Status Report:				
Report of Progress:				
Update Evaluation of the Problem and/or Solution:				





Action Worksheet				
Project Name:	Post Office Backup Power			
Project Number:	2021-Green-009			
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate		
Life Safety	1	Project will protect critical services of Post Offices		
Property Protection	1	Project will protect buildings from power loss.		
Cost-Effectiveness	1			
Technical	1			
Political	1			
Legal	1	The Township 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	OEM, Engineer, Administration		
Other Community Objectives	1			
Total	12			
Priority (High/Med/Low)	High			





# 9.10 BOROUGH OF HAMBURG

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

## 9.10.1 Hazard Mitigation Planning Team

The Borough of Hamburg 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).

Primary Po	oint of Contact	Alternate Point of Contact			
		Name / Title: Michael Postorino, Public Safety/Police Director			
	enue, Hamburg, NJ 07419	Address: 16 Wallkill Avenue, Hamburg, NJ 07419			
Phone Number: (973) 670-0105		Phone Number: (973) 827-9230			
Email: oem@hamburgnj.org		Email: mpostorino@hamburgpolice.org			
NFIP Floodplain Adm	inistrator				
Name / Title: John Ruse					
	le Avenue, Suite G22 Morris	town NJ 07960			
Phone Number: (973) 82					
Email: John.ruschke@m					
Name	Title	Method of Participation			
John Ruschke, PE & Samantha Anello, PE	Borough Engineers	NFIP floodplain managers, contributed to the mitigation strategies, reviewed annex. John attended the kickoff meeting. Samantha attended the risk assessment meeting and mitigation strategy workshop. Reviewed annex*			
Keith Sukennikoff	OEM Coordinator	Primary point of contact; attended the kickoff meeting, reviewed annex*			
Michael Postorino	Public Safety/Police Director	Alternate point of contact			
Paul Marino	Mayor	Reviewed annex*			
Christine Licata	Fiscal/CFO	Reviewed annex*			
Joseph Butto	Construction Official	Reviewed annex*			
Michael Schneider	Public Works	Reviewed annex*			
Jason Tangola	Police	Reviewed annex*			
Richard Padgett Jr	Fire	Reviewed annex*			

### Table 9.10-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





## 9.10.2 Jurisdiction Profile

The Borough of Hamburg is located in northern Sussex County. It is bordered to the north, east and west by the Township of Hardyston and to the south by the Borough of Franklin. The Borough covers an area of approximately 1.2 square miles. A tributary of the Wallkill River flows through the northern section of the Borough and along the Wallkill River forms the western border between the Borough and Township of Hardyston. Hamburg Creek is located in the southern end of the Borough. Hardistonville is an unincorporated area of the Borough.

According to the U.S. Census, the 2010 population for the Borough of Hamburg was 3,277. The estimated 2018 population was 3,152, a 3.8 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 4.2 percent of the population is 5 years of age or younger and 15.4 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.

## 9.10.3 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 9.9-2 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.

Type of Development	2	015	2	016	2(	)17	2(	018	20	)19
Number of 1	Building	Building Permits for New Construction		on 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		ype of opment		Units / ctures	(ad and/o	<b>ation</b> dress or block l lot)	На	iown zard ie(s)*	Stat	iption / tus of opment
Re		jor Develo	opment a	nd Infras						
Fairways at Wallkill	Reside	ntial	68		0, 2	Block	Incider Area, Hazard Materia Incider Nuclea Incider Area,	Hazard Railway at Hazard lous al at Area,	Ongoir	g

## Table 9.10-2. Recent and Expected Future Development





			Steep Slopes, Wildfire		
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

## 9.10.4 Capability Assessment

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

Codes, Ordinances, & Requirements	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	been integra	ts of the HMP ated into your ances/plans? If no - add Mitigation Action #, if applicable.	
Building Code	Yes	State & Local	Yes	Yes	-	
Comment: • 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	Yes	-	

#### Table 9.10-3. Planning, Legal and Regulatory Capability





				been integra	ts of the HMP ited into your
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	codes/ordin If yes- how? Describe in comments.	ances/plans If no - add Mitigation Action #, if applicable.
			Planning Board		
Comment: State permissive on local level. Per State Power to zone, requires all jurisdiction. has adopted the land use element and m The Zoning Department is responsible j	s to have current zon aster plan.	ning and other land de	velopment ordinal 15.		
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
of adjustment shall substitute for that og or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this • The LUB is responsible for this ordinan	of this act . Dictated county planning boa and for the approval section.	d by the Municipal Lai rd shall provide for th of those subdivisions	nd Use Law. NJ Si ne review of all sui	tatute 40:27-6.2 bdivisions of lan	- the board of d within the
Stormwater Management	Yes	Local	Yes	Yes	-
Comment: See Title 7 of the NJ Administrative Cod The LUB is responsible for this ordinan Post-Disaster Recovery		th Chapter 182.	No	-	-
Comment:					
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	
<b>Comment:</b> N.J.A.C. 13:45A-29.1 - Before signing (POS) approved by the New Jersey Real Estate Co improvements, fees for services and amenities, the and police, as well as any hazards, risks or nuisand <b>Growth Management</b>	mmission. The POS type of title and own	provides information s pership interest being o	such as estimated	completion date	s for
orowin Munagement	110		Planning Board		
Comment: • State mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make	elineation of Growth	Areas and Environs;	Use of the endorse management stra	ed plans in the in	
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: Dictated by the Municipal Land Use La review. NJ Statute 40:27-6.2: The boars review of all subdivisions of land within affecting county road or drainage facil planning boards shall have a complete municipal clerk shall file with the count on the effective date of this act and shall	d of commissioners of the county by said ities as set forth and file of the planning of y planning board a	of any county having a county planning boar l limited hereinafter in and zoning ordinances copy of the planning a	county planning of d and for the appr this section. 40:2 of all municipalit nd zoning ordinar	board shall pro roval of those suit 27-6.10 In order ties in the county aces of the munic	vide for the bdivisions that county , each :ipality in effec

				been integra	ts of the HMP ated into your ances/plans
	Do you have this? (Yes/No)		Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable
such an ordinance which affects land boundary, or proposed facilities or pu given to the county planning board at a copy of the official notice of the pul The LUB is responsible for these requ	iblic lands shown on t least 10 days prior to lic hearing together w	he county master plan the public hearing the vith a copy of the prope	n or official county ereon by personal	map. Such not	ice shall be
Environmental Protection	Yes	State	No	Yes	-
Comment: • Chapter 215-20 of the Hamburg Code ponds, detention basins, wetlands as from the land area used by an applica	defined on the Army C	orps of Engineers' wet the calculation of per	tlands survey and j	floodplains shal	
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	-
	No	-	No	-	-
Wellhead Protection		-		-	-
Comment:					
Emergency Management	Yes	State and Local	No	No	-
Comment: Chapter 20 Fire Department Chapter 44 Police Department			-		
Climate Change	No	-	No	-	-
Comment:					
Disaster Recovery Ordinance	No	-	No	-	-
Comment:					
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:	·				
Other: Municipal Separate Storm Sewer System (MS4)	Yes	Local	No	Yes	-
<i>Comment:</i> • The DPW is responsible for this ordin	ance in compliance w	ith Chapter 182.			
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
Comment: 2018 Revised NJ Statute 40:27-2; the the county. The master plan of a coun- show the county planning board's rec among other things, the general loca developments, parkways, playground. the general location and extent of for- water supply, sanitary and drainage important to the development of the c	ty, with the accompan ommendations for the tion, character, and e: s, forests, reservation. ests, agricultural area facilities, or the protect	ying maps, plats, char development of the te xtent of streets or road s, parks, airports, and s, and open-developm ction of urban develop	ts, and descriptive pritory covered by s, viaducts, bridge other public ways pent areas for purp ment, and such of	e and explanator the plan, and mess, waterway and grounds, place poses of conserva- ther features as the second	y matter, shall hay include, hd waterfront s and spaces; ation, food and 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.





				Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable	
• The LUB is responsible for this plan. T 2006.	he plan was adopted	in 1997 and a re-exar	nination report wa	as completed in	November of	
Capital Improvement Plan	No	-	No	-	-	
Comment:				L		
Disaster Debris Management Plan	No	-	No	-	2020- Hamburg- 006	
Comment:						
Floodplain or Watershed Plan	No	-	No	-	-	
Comment:						
Stormwater Management Plan	Yes	Local	Yes	Yes	-	
of major development to be located wit without prior authorization from the D This plan was adopted on April 20,200 The MC is responsible for this plan in a	epartment under the 5.	Flood Hazard Area C			an zone	
Stormwater Pollution Prevention Plan	No	-	No	-	-	
<ul> <li>The Phase II New Jersey Pollutant Dis. 7:14A) were published in the February associated with existing stormwater rul as required under the Federal Clean W operate small municipal separate storm municipalities, certain public complexe or maintain highways. The permit prog nonpoint source pollutant loads from th ordinances (litter control, pet waste, w management plan and implementing or basin cleaning); implementing solids a education component.</li> <li>Hamburg is a Tier B community and a</li> </ul>	2, 2004, NJ Register noff. The NJPDES ru 'ater Act. These NJP a sewer systems, know s such as universitie, ram establishes the S hese sources. The Sta ildlife feeding, prope dinance(s); requiring nd floatables control	These NJPDES rule. les establish a regulat DES rules govern the wn as MS4s. Under th s and hospitals, and S. Statewide Basic Require ttewide Basic Require trewide Basic Require trewide Basic Require trewide disposal, etc.) g certain maintenance ; locating discharge p	s are intended to a tory program for e issuance of permit is program, permit tate, interstate and rements that must ments include mea ; the development activities (such a oints and stencilin	ddress and redu xisting stormwa 's to entities that ts must be secur I federal agenci be implemented sures such as: t of a municipal s s street sweeping	ice pollutants ther discharges when or ed by es that operate to reduce the adoption of stormwater g and catch	
Unhan Watan Managam 4 Di	No	-	No	-		
Urban water Management Plan					-	
5					-	
Comment:	No		No	-	-	
Comment: Habitat Conservation Plan		-	No	-	-	
Comment: Habitat Conservation Plan Comment:			No	-	-	
Urban Water Management Plan <i>Comment:</i> Habitat Conservation Plan <i>Comment:</i> Economic Development Plan <i>Comment:</i>	No	-		-	-	

structures, and site preparation. This law is implemented through NJ's Coastal Zone management Rules N.J.A.C. 7:7E-1 et seq.





				Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Community Wildfire Protection Plan	No	-	No	-	-	
Comment:						
<b>Community Forest Management Plan</b>	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	No	-	
Comment: • This plan was adopted on June 24, 200 • The MC is responsible for this plan in or Response/Recovery Planning		pter 215.				
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-	
Comment: • Each county and municipality in the Stancessary to implement the plan. Each Emergency Planning Guidelines have b subsequent scheduled review of the Sta • This plan was adopted in 2010, updated • The Office of Emergency Management Threat & Hazard Identification & Risk	Emergency Operation been adopted by the S te Emergency Opera d in March 2019, and is responsible for thi	ns Plan shall be adop State Office of Emerge tions Plan. L.1989, c.2 d approved by the New	ted no later than o ncy Management 222, s.19. 9 Jersey State Poli	one year after the and shall be eva	e State	
Assessment (THIRA)	No	-	No	-	-	
Comment:						
Post-Disaster Recovery Plan	No	-	No	-	-	
	No	-	No	-	-	
Post-Disaster Recovery Plan	No	-	No No	-	-	
Post-Disaster Recovery Plan <i>Comment:</i>		-			-	
Post-Disaster Recovery Plan Comment: Continuity of Operations Plan		- - County			-	
Post-Disaster Recovery Plan <i>Comment:</i> Continuity of Operations Plan <i>Comment:</i>	No Yes	- County	No Yes	-	-	
Post-Disaster Recovery Plan         Comment:         Continuity of Operations Plan         Comment:         Public Health Plan         Comment:         • There is a public health plan within the	No Yes	- County	No Yes	-	-	





Table 9.10-4. Development and Permitting Capability	
---	--

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Construction Department
Does your jurisdiction have the ability to track permits by hazard area?	Yes, the Borough has access to the County GIS system
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 Hamburg.

#### Table 9.10-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Lane Use Board
Mitigation Planning Committee	No	-
Environmental Board / Commission	No	-
Open Space Board / Committee	Yes	Land Use Board, Recreation Commission
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	No	-
Maintenance program to reduce risk	No	-
Mutual aid agreements	Yes	Mayor and Council
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Mayor and Council
Engineers or professionals trained in building or infrastructure construction practices	Yes	Mayor and Council
Planners or engineers with an understanding of natural hazards	Yes	Mayor and Council
Staff with training in benefit/cost analysis	Yes	Engineer
Staff with training in green infrastructure	Yes	Engineer
Staff with education/knowledge/training in low impact development	Yes	Engineer
Surveyor	Yes	Mayor and Council
Stormwater engineer	Yes	Engineer
Personnel skilled or trained in GIS applications	Yes	Mayor and Council
Local or state water quality professional	Yes	John Perry-
Scientist familiar with natural hazards in local area	Yes	Mayor and Council
Emergency manager	Yes	Mayor and Council
Watershed planner	No	-
Environmental specialist	Yes	Engineer
Grant writers	Yes	Jeff Stevens
Resilience Officer	No	-



#### FISCAL CAPABILITY

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

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes
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	Yes
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	No
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No
Other: Open Space Acquisition Funding Programs	Yes

#### **Table 9.10-6. Fiscal Capabilities**

#### EDUCATION AND OUTREACH CAPABILITY

The table below summarizes the education and outreach resources available to the Borough of Hamburg.

Criterion	Response
Do you have a public information officer or communications office?	No
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.	No
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.	No

## Table 9.10-7. Education and Outreach Capabilities

#### **COMMUNITY CLASSIFICATIONS**

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

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	Hardyston Building Department	Hardyston Building Department
Public Protection (Fire ISO Protection Class)	Yes	Hardyston Building Department	Hardyston Building Department

### Table 9.10-8. Community Classifications





Program	Participating?	Classification	Date Classified
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.

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

#### Table 9.10-9. Adaptive Capacity

Notes:

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

#### NATIONAL FLOOD INSURANCE PROGRAM

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

#### Table 9.10-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Engineering
Who is your floodplain administrator? (name, department/position)	John Ruschke, PE, CFM – Borough Engineer; Samantha Anello, PE, CFM - Engineering
Are any certified floodplain managers on staff in your jurisdiction?	Yes - John Ruschke, PE, CFM – Borough Engineer; Samantha Anello, PE, CFM - Engineering
What is the date that your flood damage prevention ordinance was last amended?	August 2011



Criterion	Response
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets minimum requirements.
When was the most recent Community Assistance Visit or Community Assistance Contact?	December 7, 1994
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 if offered.
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
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	4 policies \$1,225,000 insurance in force \$1,712 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	0 claims or payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	Not currently

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

## **OPPORTUNITIES FOR FUTURE INTEGRATION**

• **Disaster Debris Management Plan:** The Borough will develop a Disaster Debris Management Plan (2020-Hamburg-006).

## 9.10.5 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 Hamburg'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 9.9-11 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.





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 Weather and Snowstorm	Yes	A major nor'easter, produced record snowfall and blizzard conditions in parts of New Jersey on January 23 <sup>rd</sup> and 24th.	Although the County was impacted, the Borough 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 Borough was subject to closures and social distance and masking mandates.
2020	Rainstorm	No	Large storm event resulted in significant wash out at the Limekiln Road culvert in 2020. Resulted	The Borough incurred costs for DPW overtime to clean-up

#### Table 9.10-11. Hazard Event History

Source: FEMA 2020, NOAA NCEI 2020

## 9.10.6 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 Hamburg 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 Hamburg 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 Hamburg has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

The following summarizes the repetitive and severe repetitive flood losses in the Borough of Hamburg.

- Number of repetitive loss (RL) properties: 0
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0 *Source: FEMA 2019*

#### 5001CC. 1 EMA 2015

#### **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 9.10-12. Critical Facilities and Lifelines Flood Exposure

		Expo	sure
Name	Туре	1% Event	0.2% Event
Wheatsworth Mill #1 Dam	Dam	Х	Х
Wheatsworth Mill #2 Dam	Dam	Х	Х

Source: Sussex County Planning Partnership 2020





### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- The Borough has noted that dams in Hamburg need to be brought into compliance with NJDEP requirements. Currently, there are no Emergency Action Plans in place.
- The Borough has reported the need to install a backup generator at the Hamburg Elementary School and to install portable generators to deploy on an as-needed basis.
- Limekiln Road has been identified as having undersized culverts that result in periodic road flooding.
- North Governor Haines Street has been identified as being a drainage problem area.
- The Borough has identified inflow/infiltration issues with Hamburg's water/sewer system and proposes monitoring and remedies to manage the issue.

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

• In 2016, the Dam Failure ranking was listed as high. In the initial 2020 risk assessment, the hazard was ranked low. The Borough requested that the ranking should be changed to high to reflect the lack of evidence for existing dams' compliance and the lack of an Emergency Action Plan.

Dam Failure	Disease Outbrea	k Drought	Earthqua	ake		Flood	Geologic
High	Medium	Medium	Low			Medium	Low
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter		ere ther	Severe Winter Weather	Wildfire
Medium	High	Medium	High	Hi	gh	High	Low

## Table 9.10-13. Borough of Hamburg Hazard Ranking

## 9.10.7 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 9.9-15 and Table 9.9-16 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.

			Status (In Progress, No		the 2021 HMP pdate?
2016	Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Hamburg- 1 (old #1)	Backup generator for shelter at Hamburg Elementary School located on Linwood Avenue.	OEM Coordinator	No Progress	х	2021- Hamburg-001
Hamburg- 2 (old #2)	Retrofit roof to meet current snow load standards on Hamburg Elementary School located on Linwood Avenue.	School Administrator, Municipal Engineer	In-Progress, 50% complete	Х	2021- Hamburg-002
Hamburg- 3 (revised old #4)	Develop, implement, and facilitate a multi-hazard public awareness program. Provide information on all types of hazards, preparedness and mitigation measures via the Borough website and social media.	OEM Coordinator, in coordination with SCDEM	No Progress	Х	2021- Hamburg-003
Hamburg- 4 (new)	Multi-purpose emergency vehicle to support highways	Borough OEM	No Progress	Х	2021- Hamburg-004
Hamburg- 5 (new)	Purchase Bobcat Skid-Steer to use during debris cleanup operations and post-hazard events.	Borough DPW	No Progress	х	2021- Hamburg-005
Hamburg- 6 (new)	Create and maintain a plan for adequate road and debris clearing capabilities within the Borough.	Borough DPW	No Progress	Х	2021- Hamburg-006
Hamburg- 7 (new)	Purchase portable generator for critical facilities	Municipal Engineer, OEM Coordinator	No Progress	х	2021- Hamburg-007
Hamburg- 8 (new)	Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan; consider including hazard identification, hazard zones risk assessment information, and hazard mitigation goals as identified in the HMP. Further, the findings and recommendation of the HMP will be considered during any future site plan review processes.	Planning	No Progress	X	2021- Hamburg-008
Hamburg- 9 (new)	During the Borough's rezoning procedures or update of the	Borough Administration	No Progress	X	2021- Hamburg-009

#### Table 9.10-14. Status of Previous HMP Mitigation Actions





			Status (In Progress, No		the 2021 HMP pdate?
2016	Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
	zoning ordinance, the Borough will recognize hazard areas as limits on changes to zoning within the municipality.				
Hamburg- 10 (new)	Prepare and enforce a fire plan for the Borough and recognize the existence of wildfire hazards and identify risk areas based on a vulnerability assessment.	OEM Coordinator	No Progress	х	2021- Hamburg-010
Hamburg- 11 (new)	The Borough will work with local school districts and assist with community service projects regarding hazards and mitigation.	OEM Coordinator	No Progress	Х	2021- Hamburg-011
Hamburg- 12 (new)	Catch Basin & General Stormwater Facility Maintenance: The continual maintenance of catch basins and stormwater facilities is critical especially before and after large storm events	Borough DPW and Engineer	In Progress	Х	2021- Hamburg-012
Hamburg- 13 (new)	Sanitary Sewer Reinforcement: Perform a study to determine where sanitary sewer reinforcement is needed due to most imminent threats of failure or cracking.	Borough Engineer	No Progress	Х	2021- Hamburg-013
Hamburg- 14 (new)	Tree Removal and Maintenance in the Vicinity of Power Lines: Tree removal and maintenance in the vicinity of power lines will help minimize power outages during Severe Weather events.	Borough DPW	In Progress	Х	2021- Hamburg-014

## **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Borough of Hamburg 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 Hamburg 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 9.9-15 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Hamburg 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 9.9-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.10-15. Proposed Hazard Mitigation Initiatives
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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- Hamburg- 001	Generator Installation	<ul> <li>Problem: The Hamburg Elementary School does not have a backup generator to power the facility during a power outage. Because the facility is used as a shelter for the municipality, it is critical to install a generator to power the facility to be used during hazard events.</li> <li>Solution: Install 3 phase backup generator for shelter at Hamburg Elementary School located on Linwood Avenue. The Borough Engineer and the school maintenance crew shall work together to purchase and install the generator.</li> </ul>	New	Flood, Severe Weather, Severe Winter Weather	1, 2, 3, 5, 6	OEM Coordinator	HMGP, Municipal Budget	Continued Operation	\$150k	l year	Medium	SIP	PP, PR, ES
2021- Hamburg- 002	Roof Upgrade	<b>Problem:</b> The roof of the Hamburg Elementary	Existing	Severe Winter Weather	1, 2, 5	School Administrator, Municipal Engineer	Municipal Budget, School Budget	Structural Mitigation	Medium	1 year	Medium	SIP	PR, ES





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
		School cannot handle the snow load that accumulates during severe snowstorms.											
		Solution: Retrofit roof to meet current snow load standards on Hamburg Elementary School located on Linwood Avenue.											
2021- Hamburg- 003	Multi-Hazard Public Awareness Program	Problem: Thereis a lack ofknowledgearound hazardmitigation in theregion andresidents areunderpreparedfor potentialnatural hazardeventsSolution:Develop,implement, andfacilitate amulti-hazardpublicawarenessprogram.Provideinformation onall types ofhazards,preparednessand mitigationmeasures via theBorough	New	All Hazards	1, 2, 3, 4, 5, 6	OEM Coordinator, in coordination with SCDEM	Municipal Budget	Preparedne ss and Increase Public Knowledge	Low	5 years	Medium	EAP	PR, PI



<u> </u>			-										
Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution website and social media.	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- Hamburg- 004	Purchase Emergency vehicle	Problem: The municipality does not have an emergency vehicle to support highway and issues related to road closures and issues related to severe weather. Additional vehicles will increase capacity and overall response. Solution: The municipality shall purchase a multi-purpose emergency vehicle to support highways.	New	All Hazards	3, 5, 6	Borough OEM	Municipal Budget, HMGP,	Increased Capacity	Low	5 year	Medium	SIP	PP, ES
2021- Hamburg- 005	Purchase Bobcat Skid- Steer	Problem: The municipality struggles to keep up with debris cleanup operation immediately after storm events. This could cause significant issues around subsequent flooding due to clogging of roadways and waterbodies.	New	Severe Weather, Flood	1, 2, 4, 5	Borough DPW	Municipal Budget, HMGP, New Jersey Departmen t of Transportat ion – Local Aid Program	Increased capability	Medium	1 year	Medium	SIP	PR, 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: Purchase Bobcat Skid-Steer to use during debris cleanup operations and post-hazard events.											
2021- Hamburg- 006	Develop Disaster Debris Management Plan	<b>Problem:</b> The municipality has not developed a comprehensive strategy to address debris clearing during and after a hazard event.	New	All Hazards	1, 2, 4, 5	Borough DPW	Municipal Budget	Streamline d Response	Low	1 year	High	LPR	ES
		Solution: Create and maintain a plan for adequate road and debris clearing capabilities within the Borough.											
2021- Hamburg- 007	Portable Generator	Problem: Not all critical facilities have backup power. Solution: Purchase portable generators for critical facilities that can be used to power the bare essentials during a hazard event	New	Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather	1, 2, 3, 5	Municipal Engineer, OEM Coordinator	HMGP	Continued Operation	Low	1 year	Medium	LPR	PR
2021- Hamburg- 008	HMP Implementation	<b>Problem:</b> The municipality has previously not been successful	Existing	All	1, 2, 3, 4, 5, 6, 7	Planning	Municipal Budget	Enhanced Planning	Low	5 years	High	LPR	PR



## Section 9.10 - Borough of Hamburg

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
2001		in implementing hazard mitigation actions within the municipality. Solution: Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan; consider including hazard identification, hazard zones risk assessment information, and hazard mitigation goals as identified in the HMP. Further, the findings and recommendation of the HMP will be considered during any future site plan review processes.				Duranda							
2021- Hamburg- 009	Hazard Area Identification and Plan Implementation	Problem: The municipality has previously not been successful in identifying potential hazard areas within the municipality. Solution: During the Borough's	Existing	All	1, 2, 3, 4, 5, 6, 7	Borough Administration	Municipal Budget as Needed	Hazard Mitigation	Low	5 years and longer	High	LPR	PR



Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		rezoning procedures or update of the zoning ordinance, the Borough will recognize hazard areas as limits on changes to zoning within the municipality.											
2021- Hamburg- 010	Fire Plan Implementation	<b>Problem:</b> The municipality has previously not been successful in implementing the municipal fire plan proposed actions.	Existing	All	1, 2, 3, 4, 5, 6, 7	OEM Coordinator	Municipal Budget as Needed	All	Low	5 years and longer	High	LPR	PR
		Solution: Prepare and enforce a fire plan for the Borough and recognize the existence of wildfire hazards and identify risk areas based on a vulnerability assessment.											
2021- Hamburg- 011	Local School Districts HMP Implementation	<b>Problem:</b> The municipality has previously not been able to successfully implement hazard mitigation actions in coordination	Existing	All	1, 2, 3, 4, 5, 6, 7	OEM Coordinator	Municipal Budget as Needed	HMP Integration	Low	5 years	Medium	LPR	PR



								1	1				
Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution with the local	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
		school districts. Solution: The Borough will work with local school districts and assist with community service projects regarding hazards and mitigation.											
2021- Hamburg- 012	Stormwater Maintenance Program	Problem: The municipality has previously had trouble around stormwater infrastructure maintenance capabilities Solution: The municipality would like to increase maintenance capabilities of catch basins and stormwater facilities is critical especially before and after large storm events. The municipality can do this by developing a program that can be coordinated with other municipalities to facilitate the maintained of	New	Flood, Severe Weathers	1, 2, 3, 5	Borough DPW and Engineer	HMGP, BRIC Municipal Budget as needed; New Jersey Water Bank; Environme ntal Infrastructu re Financing Program	Increased organized capacity	Low	5 years	High	LPR	PR



Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution local stormwater infrastructure.	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- Hamburg- 013	Reinforcements	Problem: The Sewer Sanitary Facility has been having issues around building cracking which has led to the threat of potential disrupted operation of the critical service. Solution: Sanitary Sewer Reinforcement: Perform a study to determine where sanitary sewer reinforcement is needed due to most imminent threats of failure or cracking.	New	Flood, Severe Weather	1, 2, 3, 5	Borough Engineer	HMGP, Municipal Budget	Fix Structure disrepairs	Low	2 years	Medium	SIP	SP
2021- Hamburg- 014	Tree Maintenance	Problem: In previous years, the municipality has experienced accidents around tree falling and disrupting the utility lines, subsequently causing power outages. The Borough is now on the power company's tree trimming program which	New	Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather	1, 2, 3, 4, 5	Borough DPW	HMGP, Municipal Budget	Better Tree Maintenanc e	High	2 years	Medium	LPR SP,	PP, NR



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
		is implemented every three years. Solution: Tree Removal and Maintenance in the Vicinity of Power Lines: Tree removal and maintenance in the vicinity of power lines will help minimize power outages during severe weather events. The municipality will then work with the County to develop strategy to conduct tree											
2021- Hamburg- 015	Hamburg Borough Building Code Update	maintenance. Problem: Building Codes need to be periodically reviewed for updates to keep up with changing regulations and reduce hazard risks Solution: Perform periodical building code reviews and make updates as required	Existing	All Hazards	1	Construction Code Official	N/A – Staff Time	Low	Low	Ongoing once establishe d	High	LPR	PR, PP





	Mitigation	Description of	New or	Hazard(s)		Lead and	Potential					Mitigation Category	CRS Category
Initiative Number 2021-	Initiative Name Evaluation of	the Problem and Solution	Existing Assets?	to be Mitigated Flood,	Goals Met 1	Support Agencies	Funding Sources	Estimated Benefits High	Estimated Cost High	Timeline Short	Priority High	Cate	SH S
Hamburg-	Bridges and	Problem: Aged Infrastructure	Existing	Severe	1	Borough Administration	Borough	пıgn	nign	Short	rign	LPK	PK
016	Other River Structures	Solution: A comprehensive master plan should be developed for appropriate sizing of the bridge openings and setting road elevations to provide maximum benefits as the bridges are eventually replaced over time.		Weather		, Township Engineer							
2021- Hamburg- 017	Hazard Warning System	Problem: Hazard warning systems need to be developed. Solution: The hazard warning system resources available to the Borough will be reviewed and utilized.	Existing	All Hazards	1, 2, 3, 4	Borough Administration , Borough Engineer	Borough	High	Low	Short	High	EAP	PI
2021- Hamburg- 018	Stream Cleaning & Maintenance	Problem: The required removal of built-up debris and sediment/silt buildup within streams and rivers. Bridge openings must be maintained. Solution: Removal of	Existing	Flood, Severe Weather, Severe Winter Weather	1, 3	Borough Administration , Borough Engineer	Borough, Capital Improveme nts	High	Low	Short – Annual Basis	High	NSP	PR, PP, NR, SP



Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		debris, sediment, and silt from the channel as well as bridge openings by volunteer groups and outside contractors when needed.											
2021- Hamburg- 019	GIS Mapping of Catch Basin & General Stormwater Facilities	<b>Problem</b> : The location of all catch basins and stormwater facilities, both private and public, need to be identified, mapped, and located for planning and maintenance	Existing	Flood, Severe Weather	1	Borough Administration , Borough Engineer, DPW Supervisor	Borough budget	High	Low	Short	High	NSP , SIP	PR, PP
		Solution: Create a GIS mapping system of catch basins, stormwater facilities, basins, culverts, and other drainage features and structures											
2021- Hamburg- 020	Dam project	<b>Problem:</b> There is no evidence of existing dams being in compliance with Dam Safety Requirements; No Emergency Action Plan for Dam failure.	Existing	Dam Failure	7	Administration , Dam owners	Borough budget	Dams brought into compliance with NJDEP Dam Safety Requireme nts	Staff time	1 year	High	EAP	PI



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Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution Solution: The	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
		Borough will work with dam owners to gain copies of Emergency Action Plans or instruct them to develop Plan in conjunction with NJDEP.											
2021- Hamburg- 021	North Governor Haines Street Drainage	Problem: North Governor Haines Street experiences drainage issues. Solution: The Borough will conduct a feasibility study for North Governor Haines Street drainage issues. If cost-effective measures are identified, the Borough will pursue grant funding and implement the selected actions.	Existing	Flood, Severe Weather	2	Engineer, DPW	HMGP, BRIC, municipal budget	Reduction in flood risk	\$200,000	Within 5 years	High	SIP	SP
2021- Hamburg- 022	Limekiln Road Drainage Improvement Project	<b>Problem:</b> The existing culvert on Limekiln Road does not have adequate capacity, resulting in flooding on roadway and near the Pump Station.	Existing	Flood, Severe Weather	2	Engineering	HMGP, BRIC, Municipal Budget	Reduction in flood Risk	\$500,000	Within 5 years	High	SIP	SP



A THE													
Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		Solution: The											
		Borough											
		Engineer will											
		determine the											
		necessary											
		culvert and											
		drainage											
		channel											
		improvements											
		that are required											
		to pass required											
		capacity. The											
		Borough will											
		then complete the identified											
1		improvements.											

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:

BRIC Building Resilient Infrastructure and Communities FMA Flood Mitigation Assistance Grant Program Hazard Mitigation Grant 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:

- ٠ 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 ٠ 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.
- ٠ Natural Systems Protection (NSP) – These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

HMGP

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:

It

- Preventative Measures (PR) Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning ٠ 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 ٠ 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 9.10-16.
 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- Hamburg- 001	Generator Installation	0	0	1	0	0	0	0	0	1	1	1	1	1	1	7	Medium
2021- Hamburg- 002	Roof Upgrade	1	1	1	1	0	0	0	0	0	0	1	1	1	1	7	Medium
2021- Hamburg- 003	Multi-Hazard Public Awareness Program	0	0	1	1	0	0	0	0	0	1	1	1	1	0	6	Medium
2021- Hamburg- 004	Purchase Emergency Vehicle	1	0	1	0	0	0	1	0	0	1	1	1	1	1	8	Medium
2021- Hamburg- 005	Purchase Bobcat Skid-Steer	1	0	1	0	0	0	1	0	0	1	1	1	1	1	8	Medium
2021- Hamburg- 006	Develop Disaster Debris Management Plan	1	1	1	1	0	0	0	0	0	1	1	1	1	1	9	High
2021- Hamburg- 007	Portable Generator	0	0	1	0	0	0	0	0	1	1	1	1	1	1	7	Medium
2021- Hamburg- 008	HMP Implementation	1	1	1	1	1	0	0	0	0	1	1	1	1	1	10	High
2021- Hamburg- 009	Hazard Area Identification and Plan Implementation	1	1	1	1	1	0	0	0	0	1	1	1	1	1	10	High
2021- Hamburg- 010	Fire Plan Implementation	1	1	1	1	1	0	0	0	0	1	1	1	1	1	10	High
2021- Hamburg- 011	Local School Districts HMP Implementation	0	0	1	1	0	0	0	0	0	1	1	1	1	0	6	Medium





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- Hamburg- 012	Stormwater Maintenance Program	0	1	1	0	0	0	0	1	1	1	1	1	1	1	9	High
2021- Hamburg- 013	Reinforcements	0	1	1	1	0	0	0	0	0	1	0	1	1	1	7	Medium
2021- Hamburg- 014	Tree Maintenance	0	1	1	0	0	0	0	1	1	1	0	1	1	1	8	Medium
2021- Hamburg- 015	Hamburg Borough Building Code Update	0	1	1	1	0	1	0	0	0	1	1	1	1	0	8	Medium
2021- Hamburg- 016	Evaluation of Bridges and Other River Structures	1	1	1	1	0	0	0	1	0	1	1	1	0	1	9	High
2021- Hamburg- 017	Hazard Warning System	1	0	1	0	0	1	1	0	1	1	1	0	1	1	9	High
2021- Hamburg- 018	Stream Cleaning & Maintenance	0	1	1	0	0	0	0	1	1	1	1	1	1	1	9	High
2021- Hamburg- 019	GIS Mapping of Catch Basin & General Stormwater Facilities	0	0	1	1	0	0	0	1	1	1	1	1	1	1	9	High
2021- Hamburg- 020	Dam project	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High
2021- Hamburg- 021	North Governor Haines Street Drainage	0	1	0	1	1	1	0	1	0	1	1	0	1	1	9	High
2021- Hamburg- 022	Limekiln Road Drainage Improvement Project	1	1	0	1	1	1	0	1	0	1	1	0	1	1	10	High

Notes: Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14). This action has been identified as being of highest importance to the municipality and an action that the municipality would like to complete as soon as funding is received.





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

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard

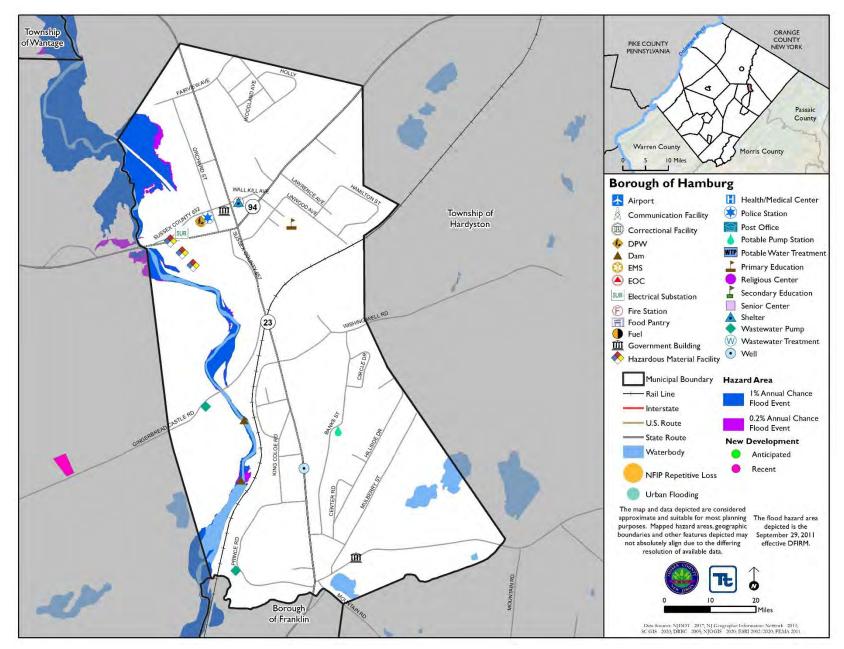


Figure 9.10-1. Borough of Hamburg Hazard Area Extent and Location Map 1

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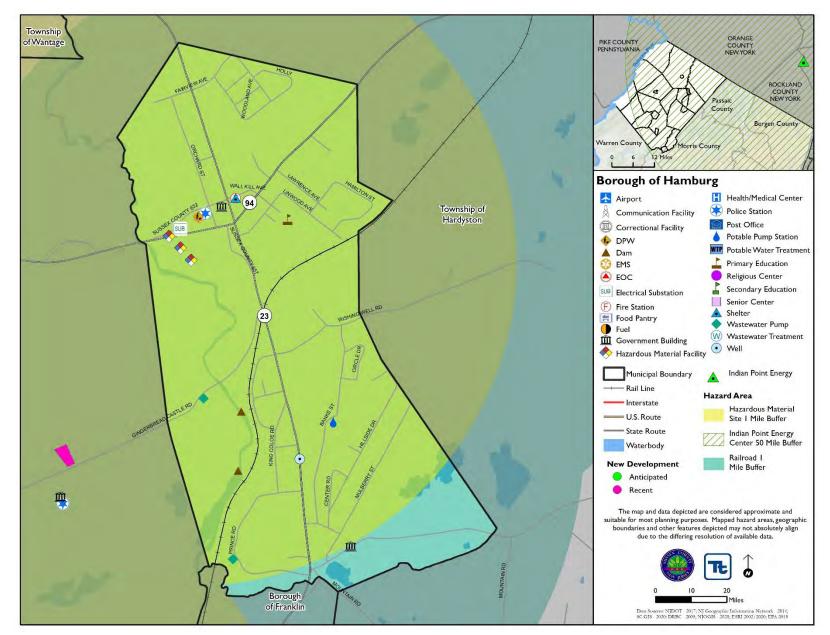


Figure 9.10-2. Borough of Hamburg Hazard Area Extent and Location Map 2

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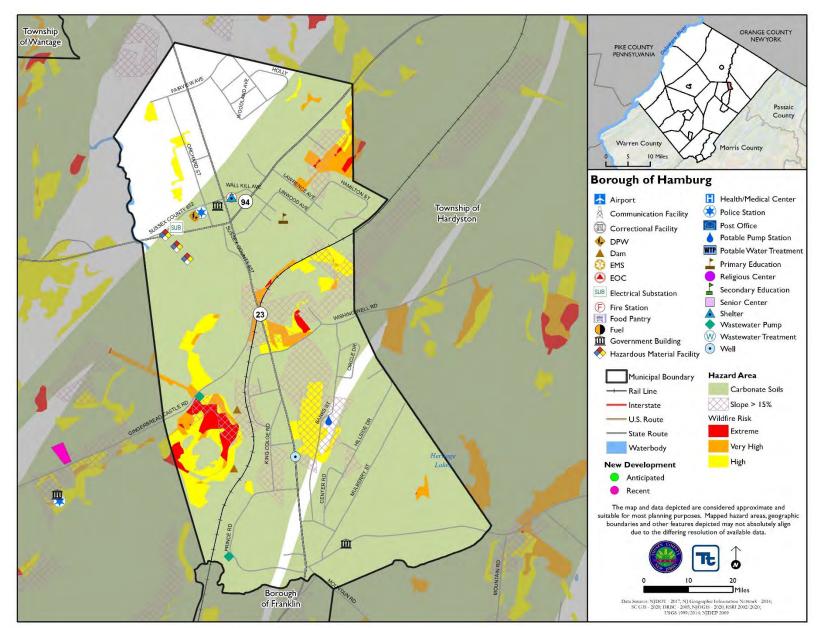


Figure 9.10-3 Borough of Hamburg Hazard Area Extent and Location Map 3



	A	ction W	orkshee	t	
Project Name:	Generator Installatio	n			
Project Number:	2020-Hamburg-001				
	Ri	sk / Vul	nerabili	ty	
Hazard(s) of Concern:	Flood, Severe Weath	er, Sevei	e Winter	Weather	
Description of the Problem:	during a power outaged critical to install a ge	ge. Becar nerator	use the fa to power	cility is used as a shell the facility to be used	enerator to power the facility ter for the municipality, it is d during hazard events.
	Action or Project	ct Intend	ded for I	mplementation	
Description of the Solution:	Linwood Avenue. Th together to purchase	e Boroug	gh Engine	eer and the school ma	ementary School located on intenance crew shall work
Is this project related to a ( Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌	
Level of Protection:	500-year storm	I		ted Benefits avoided):	Continued Operation
Useful Life:	20 years		Goals N	/let:	1, 2, 3, 5, 6
Estimated Cost:	100k		Mitigat	ion Action Type:	Structural and Infrastructure Project
	Plan	for Imp	lementa		
Prioritization:	Medium			d Timeframe for nentation:	1 year once funding received
Estimated Time Required for Project Implementation:	1 year		Potenti Source	ial Funding s:	HMGP
Responsible Organization:	OEM Coordinator		Mecha	lanning nisms to be Used ementation if any:	Hazard Mitigation
	Three Alternatives	Consid	ered (in	cluding No Action)	
	Action		E	stimated Cost	Evaluation
Alternatives:	No Action			\$0	Current problem continues
	Install Solar			High	Weather Dependent
	Generator Installa Progress Re		r nlan m	Medium	Best alternative
	Frogress Re	011 110	r plan ill		
Date of Status Report:					
Report of Progress:					
Update Evaluation of the Problem and/or Solution:					





	Actio	on Worksheet
Project Name:	Generator Installation	
Project Number:	2020-Hamburg-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	This project protects life and property
Property Protection	0	This project protects life and property
Cost-Effectiveness	1	
Technical	0	Additional technical resources are needed
Political	0	There are no known political complications
Legal	0	There are no known legal complications
Fiscal	0	Additional funding is needed
Environmental	0	No adverse environmental impacts
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	7	
Priority (High/Med/Low)	Medium	





	A	ction W	orkshee	ŧ							
Project Name:	Purchase Bobcat Ski	d-Steer									
Project Number:	2020-Hamburg-005										
	Ri	isk / Vul	nerabilit	у							
Hazard(s) of Concern:	Flood, Severe Weath	er, Sevei	re Winter	Weather							
Description of the Problem:	storm events. This co clogging of roadways	The municipality struggles to keep up with debris cleanup operation immediately after storm events. This could cause significant issues around subsequent flooding due to clogging of roadways and waterbodies.									
	Action or Proje	ct Intend	ded for Iı	nplementation							
Description of the Solution:	events. Details are un the municipality and purchase the machin	nknown l coordin	at this po	int. The DPW shall de	perations and post-hazard etermine the size needed for ow to raise money to						
Is this project related to a C Lifeline?	Critical Facility or	Yes		No 🛛							
Level of Protection:	500-year storm			ted Benefits avoided):	Continued Operation						
Useful Life:	20 years		Goals M	let:	1, 2, 4, 5						
Estimated Cost:	Medium		Mitigat	ion Action Type:	Structural and Infrastructure Project						
	Plan	for Imp	lementa		·						
Prioritization:	Medium			l Timeframe for ientation:	1 year once funding received						
Estimated Time Required for Project Implementation:	1 year			al Funding	HMGP, New Jersey Department of Transportation – Local Aid Program, Municipal Budget						
Responsible Organization:	Borough DPW		Mechar	lanning nisms to be Used ementation if any:	Hazard Mitigation						
	Three Alternatives	s Consid									
	Action		Es	stimated Cost	Evaluation						
	No Action			\$0	Current problem continues						
Alternatives:	Hire contractor to co any additional w	ork		Low	Low cost but dependent on external aid which might not be fully reliable						
	Purchase Bobcat Ski Progress Re		r nlan m	Medium	Best alternative						
Data of Status Departs			r plan illa								
Date of Status Report: Report of Progress:											
Update Evaluation of the Problem and/or Solution:											





Action Worksheet						
Project Name:	Purchase Bobcat Skid-Steer					
Project Number:	2020-Hamburg-005					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1					
Property Protection	0	This project protects property				
Cost-Effectiveness	1					
Technical	0	Additional technical resources are needed				
Political	0	There are no known political complications				
Legal	0	There are no known legal complications				
Fiscal	1					
Environmental	0	No adverse environmental impacts				
Social	0	There are no social effects				
Administrative	1					
Multi-Hazard	1					
Timeline	1					
Agency Champion	1					
Other Community Objectives	1					
Total	8					
Priority (High/Med/Low)	Medium					





	А	ction W	orkshee	et	
Project Name:	Develop Debris Mana	Develop Debris Management Plan			
Project Number:	2020-Hamburg-006				
	Ri	sk / Vul	nerabili	ty	
Hazard(s) of Concern:	All Hazards				
Description of the Problem:	during and after a ha debris clearance is a	izard eve concise	ent. As a and orga	result, the municipalit nized manner. While	egy to address debris clearing y is unable to respond to increased capacity would existing resources can also be
	Action or Proje				
Description of the Solution:Create and maintain a plan for adequate road and debris clearing capabilities within the Borough. Coordinate with the DPW and County to develop an inventory of existing sites that need constant debris clearance and for repetitive flooded sites that pose constant issues for the municipality, develop relevant mitigation actions. Finally, develop methodologies for addressing debris management after a Severe Weather and areas that require immediate response.					
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂	
Level of Protection:	500-year storm			ted Benefits avoided):	Streamlined Operations
Useful Life:	5 years		Goals Met:		1, 2,4, 5
Estimated Cost:	Medium		Mitigation Action Type:		Local Plans and Regulations
	Plan	for Imp	lementa		
Prioritization:	High		Desired Timeframe for Implementation:		1 year once funding received
Estimated Time Required for Project Implementation:	1 year			ial Funding	Municipal Budget
Responsible Organization:	Borough DPW		Mecha in Imp	Planning nisms to be Used lementation if any:	Hazard Mitigation
	Three Alternatives	6 Consid			
	Action		Estimated Cost \$0		Evaluation Current problem continues
Alternatives:	No Action Increase current capacity		High		Would need additional equipment, staff, and larger facility
	Debris management plan Low Best solution				
	Progress Re	port (fo	r plan m	aintenance)	
Date of Status Report:					
Report of Progress:					
Update Evaluation of the Problem and/or Solution:		_	_		

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Action Worksheet						
Project Name:	Develop Debris Management Plan					
Project Number:	2020-Hamburg-006					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1					
Property Protection	1					
Cost-Effectiveness	1					
Technical	1					
Political	0	There might be some political complications				
Legal	0	There are potential legal complications				
Fiscal	0	Resource needs have not yet been identified				
Environmental	0	There are no adverse environmental impacts				
Social	0	There are no adverse social impacts				
Administrative	1					
Multi-Hazard	1	All Hazards				
Timeline	1					
Agency Champion	1					
Other Community Objectives	1					
Total	9					
Priority (High/Med/Low)	High					





	A	ction W	orksheet	:		
Project Name:	Stormwater Mainten	ance Pro	ogram			
Project Number:	2020-Hamburg-012	2020-Hamburg-012				
	Ri	isk / Vul	nerabilit	у		
Hazard(s) of Concern:	Severe Weather, Floo	od				
Description of the Problem:	The municipality has maintenance capabil					
	Action or Proje	ct Intend	ded for Ir	nplementation		
Description of the Solution:	stormwater facilities	s is critica this by d	al especia eveloping	lly before and after la a program that can l	oilities of catch basins and arge storm events. The be coordinated with other ter infrastructure.	
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂		
Level of Protection:	500-year storm	•		ed Benefits avoided):	Increased organized capacity	
Useful Life:	NA		Goals M	let:	1, 2, 3, 5	
Estimated Cost:	Low		Mitigation Action Type:		Local Plans and Regulations	
	Plan	for Imp	lementa			
Prioritization:	Medium		Desired Timeframe for Implementation:		1 year once funding received	
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		HMGP, BRIC Municipal Budget as needed; New Jersey Water Bank; Environmental Infrastructure Financing Program	
Responsible Organization:	Borough DPW and Engineer		Local Planning Mechanisms to be Used		Hazard Mitigation	
	Three Alternatives	s Consid		ementation if any: luding No Action)		
	Action			stimated Cost	Evaluation	
	No Action		\$0		Current problem continues	
Alternatives:	Hire contractor to co any additional w	ork		Low	Low cost but dependent on external aid which might not be fully reliable	
	Purchase Bobcat Ski			Medium	Best alternative	
	Progress Re	port (fo	r plan ma	untenance)		
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						

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Action Worksheet						
Project Name:	Stormwater Maintenance Program					
Project Number:	2020-Hamburg-012					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1					
Property Protection	1					
Cost-Effectiveness	1					
Technical	0	Technical issues have not been identified				
Political	0	Political issues have not been identified				
Legal	0	No legal issues have been identified				
Fiscal	0	The exact cost has not yet been identified				
Environmental	1					
Social	1					
Administrative	1					
Multi-Hazard	1					
Timeline	1					
Agency Champion	1					
Other Community Objectives	1					
Total	10					
Priority (High/Med/Low)	High					





	A	ction W	orkshee	t		
Project Name:	Reinforcements	Reinforcements				
Project Number:	2020-Hamburg-013	2020-Hamburg-013				
	Ri	sk / Vul	nerabili	ty		
Hazard(s) of Concern:	Severe Weather, Floo	od				
Description of the Problem:	led to the threat of p	otential	disrupted	naving issues around l operation of the crit eeds to be in full oper	building cracking which has ical service. The facility deals ation at all times.	
	Action or Project	ct Intenc	led for li	mplementation		
Description of the Solution:	reinforcement is nee	ded due er could l	to most i hire a cor		ere sanitary sewer ailure or cracking. The DPW is assessment and determine	
Is this project related to a ( Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌		
Level of Protection:	500-year storm			ted Benefits avoided):	Fix Structure disrepairs	
Useful Life:	15 years		Goals Met:		1, 2, 3, 5	
Estimated Cost:	Low		Mitigation Action Type:		Structural and Infrastructure Projects	
	Plan	for Imp	lementa		· · ·	
Prioritization:	Medium		Desired Timeframe for Implementation:		1 year once funding received	
Estimated Time Required for Project Implementation:	2 years		Potential Funding Sources:		HMGP, Municipal Budget	
Responsible Organization:	Borough Engineer		Local Planning Mechanisms to be Used in Implementation if any:		Hazard Mitigation	
	Three Alternatives	6 Consid				
	Action		E	stimated Cost	Evaluation	
	No Action			\$0	Current problem continues	
Alternatives:	Construct a new fa	cility	High		Existing facility needs to be closed	
	Reinforcements Study			Low	Best solution	
	Progress Re	port (fo	r plan ma	aintenance)		
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Action Worksheet						
Project Name:	Reinforcements					
Project Number:	2020-Hamburg-013					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	0					
Property Protection	1					
Cost-Effectiveness	1					
Technical	0	Technical issues have not been identified				
Political	0	Political issues have not been identified				
Legal	0	No legal issues have been identified				
Fiscal	0	The exact cost has not yet been identified				
Environmental	0	No adverse environmental impact				
Social	1					
Administrative	0	No known administrative issues				
Multi-Hazard	1					
Timeline	1					
Agency Champion	1					
Other Community Objectives	1					
Total	7					
Priority (High/Med/Low)	Medium					



	A	ction W	orkshee	t		
Project Name:	North Governor Hair	North Governor Haines Street Drainage				
Project Number:	2021-Hamburg-021	2021-Hamburg-021				
	Ri	sk / Vul	nerabilit	у		
Hazard(s) of Concern:	Flood, Severe Weath	er				
Description of the Problem:	North Governor Hair	nes Stree	t experie	nces drainage issues.		
	Action or Proje	ct Intenc	ded for Ir	nplementation		
Description of the Solution:		ve meası	ires are i		ernor Haines Street drainage h will pursue grant funding	
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂		
Level of Protection:	TBD by feasibility stu	udy		ed Benefits avoided):	Reduction in flood risk	
Useful Life:	TBD by feasibility stu	udy	Goals M	let:	2	
Estimated Cost:	TBD by feasibility st	udy	Mitigation Action Type:		Local Plans and Regulations, Structure and Infrastructure Projects	
	Plan	for Imp	lementa			
Prioritization:	High			l Timeframe for entation:	Within 5 years	
Estimated Time Required for Project Implementation:	5 years		Potential Funding Sources:		HMGP, BRIC, municipal budget	
Responsible Organization:	Engineer, DPW			lanning iisms to be Used ementation if any:	Hazard mitigation planning, stormwater planning	
	Three Alternatives	s Consid				
	Action		Es	stimated Cost	Evaluation	
•1· · · ·	No Action			\$0	Current problem continues	
Alternatives:	Elevate roadwa	ys	\$500,000		Costly and may not solve problem	
	Relocate roadways		_	N/A	Not possible	
	Progress Re	port (fo	r plan ma	intenance)		
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Action Worksheet						
Project Name:	North Governor Haines Street Drainage					
Project Number:	2021-Hamburg-021					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	0					
Property Protection	1	Reduction in flooding risk				
Cost-Effectiveness	0					
Technical	1	Technically feasible project				
Political	1					
Legal	1	The Borough has the legal authority to conduct the project.				
Fiscal	0	Project will require grant funding.				
Environmental	1					
Social	0	Project would reduce flooding impacts.				
Administrative	1					
Multi-Hazard	1	Flood, Severe Weather				
Timeline	0					
Agency Champion	1	Engineer, DPW				
Other Community Objectives	1					
Total	9					
Priority (High/Med/Low)	High					





	Α	ction W	orkshee	t		
Project Name:	Limekiln Road Drain	Limekiln Road Drainage Improvement Project				
Project Number:	2021-Hamburg-022	2021-Hamburg-022				
	Ri	sk / Vul	nerabilit	t <b>y</b>		
Hazard(s) of Concern:	Flood, Severe Weath	er				
Description of the Problem:	The existing culvert of flooding on roadway				ate capacity, resulting in	
	Action or Projec	ct Intend	ded for Iı	mplementation		
Description of the Solution:	Improvements that are required to pass required capacity. The Boroligh will then					
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂		
Level of Protection:	TBD by size selected			ted Benefits avoided):	Reduction in flood risk	
Useful Life:	30 years		Goals Met:		2	
Estimated Cost:	\$500,000		Mitigation Action Type:		Structure and Infrastructure Projects	
	Plan	for Imp	lementa			
Prioritization:	High		Desired Timeframe for Implementation:		Within 5 years	
Estimated Time Required for Project Implementation:	6 months		Potential Funding Sources:		HMGP, BRIC, municipal budget	
Responsible Organization:	Engineering		Mechai	lanning nisms to be Used ementation if any:	Hazard mitigation planning	
	Three Alternatives	Consid				
	Action			stimated Cost	Evaluation	
	No Action			\$0	Current problem continues	
Alternatives:	Elevate roadway		\$500,000		Costly and may not solve problem	
	Relocate roadway			N/A	Not possible	
	Progress Rej	port (fo	r plan ma	aintenance)		
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Action Worksheet						
Project Name:	Limekiln Road Drainage Improvement Project					
Project Number:	2021-Hamburg-022					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1	Protects life from flooding.				
Property Protection	1	Protects culvert from flood damage				
Cost-Effectiveness	0					
Technical	1	Technically feasible project				
Political	1					
Legal	1	The Borough has the legal authority to conduct the project.				
Fiscal	0	Project will require grant funding.				
Environmental	1					
Social	0	Project would reduce flooding impacts				
Administrative	1					
Multi-Hazard	1	Flood, Severe Weather				
Timeline	0	Within 5 years				
Agency Champion	1	Engineering				
Other Community Objectives	1					
Total	10					
Priority (High/Med/Low)	High					





# 9.11 TOWNSHIP OF HAMPTON

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

## 9.11.1 Hazard Mitigation Planning Team

The Township of Hampton 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).

Primary Point of Contact		Alternate Point of Contact
Name / Title: Edward Hayes, Township Emergency Management Coordinator Address: 1 Rumsey Way, Newton, NJ 07860 Phone Number: (973) 592-2767 Email: biged5679@yahoo.com		Name / Title: Jessica M. Caruso, Administrator Address: 1 Rumsey Way, Newton, NJ 07860 Phone Number: (973) 383-5570 Email: administrator@hamptontwp-nj.org
NFIP Floodplain Ad Name / Title: Harold I 17 Plains Road, Augu Phone Number: 973-9 Email: hpellow@hpel	E. Pellow, Township Engineer st, NJ 07822 48-6463	
Name	Title	Method of Participation
Jessica Caruso	Township Administrator	Attended the kickoff meeting, risk assessment meeting and mitigation strategy workshop; provided data and information for annex development; reviewed annex*
Ed Hayes OEM Coordinator		Attended the kickoff meeting, annex training, risk assessment meeting and mitigation strategy workshop; provided data and information for annex development; reviewed annex*
Daniel Bayles	CPWM	Contributed to annex development; reviewed annex*
Harold E. Pellow	Engineer and NFIP Floodplain Administrator	Reviewed annex*
Robert W. Huber	Building Code Official	Reviewed annex*
Daniel Bayles	Public Works	Reviewed annex*
Lt. J. Shawell	NJ State Police Station Commander	Reviewed annex*
Chief	Hampton Fire & Rescue	Reviewed annex*

### Table 9.11-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





## 9.11.2 Jurisdiction Profile

The Township of Hampton is located in northwestern Sussex County. It has a total area of approximately 25.3 square miles. The Township is bordered to the north by Frankford Township, to the south by Fredon Township and the Town of Newton, to the east by the Townships of Lafayette and Andover, and to the west by the Township of Stillwater. The following unincorporated communities are located within the Township: Crandon Lakes, Myrtle Grove, Balesville, Halsey, and Washingtonville. Numerous ponds and lakes are found throughout the Township. The Paulins Kill flows through the center of the Township. Other streams found in Hampton Township include Troys Brook, Clearview Creek, Swartswood Creek, and smaller tributaries of Paulins Kill.

According to the U.S. Census, the 2010 population for the Township of Hampton was 5,196. The estimated 2018 population was 4,916, a 5.3 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 2.8 percent of the population is 5 years of age or younger and 19.4 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.

## 9.11.3 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 9.10-2 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.

Type of Development	2	015	2	016	2	017	2	018	2	019
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	1	0	4	0	1	0	3	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		TypeLocatiof# of Units /(address aDevelopmentStructuresblock and			ss and/or	-	n Hazard 1e(s)*	Sta	ription / itus of lopment	
	<b>Recent Major Development and Infrastructure from 2015 to Present</b>									
	None identified.									
Kno	own or A	nticipated	Major D	evelopmen	t and Inf	rastructure	in the Ne	ext Five (5)	Years	
				None a	inticipated	1.				

### Table 9.11-2. Recent and Expected Future Development

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

## 9.11.4 Capability Assessment

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

				Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
<ul> <li>State mandated on local level under NJ Adopted 9/3/2019</li> <li>The Building Department is responsible et seq.).</li> </ul>		0	Iniform Construc		
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: • 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 Planning Board is responsible for this code in compliance with Chapter 108 of Hampton Township Code.					
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: • P.L.1975, c.291 (C.40:55D-47): 40:55 The governing body may by ordinance	01			1 0	11

### Table 9.11-3. Planning, Legal and Regulatory Capability





				Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>the filing of such plats with the county is condition for the issuance of a permit for two dwelling-unit buildings shall be of adjustment shall substitute for that of or site plan pursuant to subsection 63b commissioners of any county having a county by said county planning board set forth and limited hereinafter in this</li> <li>The Planning Board is responsible for</li> </ul>	or any developme exempt from such f the planning bo of this act . Dict county planning b and for the appro- section.	ent, except that subdivisi h site plan review and ap ard whenever the board tated by the Municipal L board shall provide for wal of those subdivision	on or individual oproval; provide of adjustment ha and Use Law. N. the review of all s affecting coun	lot applications d that the resolu as jurisdiction of I Statute 40:27-0 subdivisions of ty road or drain	for detached one ttion of the board ver a subdivision 6.2 - the board of land within the age facilities as
Stormwater Management	Yes	State & Local	Yes	Yes	-
Comment: • See Title 7 of the NJ Administrative Co • The Planning Board is responsible for		compliance with Chapte	er 109.		
Post-Disaster Recovery	No	-	No	-	-
Comment: Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	_
(POS) approved by the New Jersey Rea improvements, fees for services and am schools, fire and police, as well as any Growth Management	enities, the type o	of title and ownership in	terest being offer		
Comment: • State Mandated on a municipal level. S Redevelopment Plan provides for the d of state environmental regulations mak • The Planning Board is responsible for	elineation of Gro es the Plan Endo	wth Areas and Environs rsement process a grow	; Use of the endo th management s pter 108-53 of H	orsed plans in th trategy.	e implementation
	Yes	Local	Yes – if municipality has a	Yes	
			Planning Board		-
Site Plan Review Comment:  Dictated by the Municipal Land Use La review. NJ Statute 40:27-6.2: The boar review of all subdivisions of land withi affecting county road or drainage faci planning boards shall have a complete municipal clerk shall file with the coun on the effective date of this act and sha such an ordinance which affects lands boundary, or proposed facilities or pub given to the county planning board at l a copy of the official notice of the publi	d of commissione n the county by so lities as set forth file of the planning ty planning board ll notify the county adjoining county olic lands shown of east 10 days prio ic hearing togethe	th minimum requirement ers of any county having tid county planning boa and limited hereinafter i ng and zoning ordinance d a copy of the planning ty planning board of the or the county master pla r to the public hearing ti er with a copy of the pro	Board ts for plans, etc., a county plannin rd and for the ap in this section. 4 es of all municipu and zoning ordii introduction of ands, or lands ly in or official cou- hereon by person posed ordinance	ng board shall f pproval of those 0:27-6.10 In ord alities in the cour ances of the mu any revision or ing within 200 fu nty map. Such i a delivery or b	provide for the subdivisions der that county inty, each unicipality in effect amendment of eet of a municipa notice shall be y certified mail oj
Comment: Dictated by the Municipal Land Use La review. NJ Statute 40:27-6.2: The boar review of all subdivisions of land withi affecting county road or drainage faci planning boards shall have a complete municipal clerk shall file with the coun on the effective date of this act and sha such an ordinance which affects lands boundary, or proposed facilities or pub given to the county planning board at l a copy of the official notice of the public The Planning Board is responsible for	d of commissione n the county by so lities as set forth file of the planning ty planning board ll notify the county adjoining county olic lands shown of east 10 days prio ic hearing togethe	th minimum requirement ers of any county having tid county planning boa and limited hereinafter i ng and zoning ordinance d a copy of the planning ty planning board of the or the county master pla r to the public hearing ti er with a copy of the pro	Board ts for plans, etc., a county plannin rd and for the ap in this section. 4 es of all municipu and zoning ordii introduction of ands, or lands ly in or official cou- hereon by person posed ordinance	ng board shall f pproval of those 0:27-6.10 In ord alities in the cour ances of the mu any revision or ing within 200 fu nty map. Such i a delivery or b	provide for the subdivisions der that county inty, each unicipality in effe amendment of eet of a municipa notice shall be y certified mail o
Comment: Dictated by the Municipal Land Use La review. NJ Statute 40:27-6.2: The boar review of all subdivisions of land within affecting county road or drainage faci planning boards shall have a complete municipal clerk shall file with the coum on the effective date of this act and sha such an ordinance which affects lands boundary, or proposed facilities or pub given to the county planning board at la a copy of the official notice of the public	d of commissione n the county by sa lities as set forth file of the plannin ty planning board ll notify the count adjoining county dic lands shown of east 10 days prio ic hearing togethe these requiremen	th minimum requirement ers of any county having tid county planning boa and limited hereinafter i ng and zoning ordinance d a copy of the planning ty planning board of the or the county master pla r to the public hearing ti er with a copy of the pro	Board ts for plans, etc., a county plannii urd and for the aq in this section. 4 ess of all municipa and zoning ordii introduction of ands, or lands ly un or official cou- hereon by persor posed ordinance hapter 85 of the	ng board shall f pproval of those 0:27-6.10 In ord alities in the cour ances of the mu any revision or ing within 200 fu nty map. Such i a delivery or b	provide for the subdivisions der that county inty, each unicipality in effe amendment of eet of a municipe notice shall be y certified mail o





SEX	COIL
3	2
12m	TIDE

				been integr	cts of the HMP rated into your nances/plans?	
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
<ul> <li>The NJ State Law Flood Area Control A federal acts to support minimization of floodplain ordinances of each municipa the NFIP requires a floodplain ordinan effective June 20, 2016.</li> <li>The Township Engineer is responsible j</li> <li>The Ordinance lacks discussion of the second second</li></ul>	flood losses. The ulity must be revie ce. Regulations j for this ordinance	ry do not require local ac wed for compliance with for the Flood Control Ha e in compliance with Cha	doption but as en h these regulatio nzards Act were o npter 62.	nforced by the N ns. In addition, adopted in 2007	JDEP, the participation in	
Wellhead Protection	No	-	No	-	-	
Comment:						
Emergency Management	Yes	County and Local	No	Yes	-	
Comment: • Chapter 12, Fire Department, Voluntee	er					
Climate Change	No	-	No	-	-	
Comment:						
Disaster Recovery Ordinance	No	-	No	-	-	
Comment:						
Disaster Reconstruction Ordinance	No	-	No	-	-	
Comment:						
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	Yes	Yes	-	
Comment: The Township is responsible for these of					t, Chapter 87 –	
Soil Removal, and Chapter 95 – Trees. The Towns Planning Documents	nip s siormwaier	Management orainance	(Chapter 207) r	eguiales solis.		
Comprehensive / Master Plan	Yes	Local	Yes	Yes	_	
Comment:						
<ul> <li>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.</li> </ul>						
Capital Improvement Plan	Yes	Local	No	No	-	
<i>Comment:</i> • The Finance Department is responsible	e for this plan in c	compliance with the Town	nshin Budøet			
Disaster Debris Management Plan	No	-	Yes	-	2021- HamptonTwp- 007	
Comment:						
Floodplain or Watershed Plan	Yes	State & Local	No	Yes	-	
	Comment: • The Township Engineer is responsible for this plan in compliance with Chapter 62 Entitled Flood Damage Prevention Adopted					





				Have aspects of the HMP been integrated into your	
					rated into your inances/plans?
		Authority that		If ves-	mances/plans:
		enforces		how?	If no - add
	Do you	(Federal, State,	Is this	Describe	Mitigation
	have this?	Regional, County,	State	in	Action #, if
	(Yes/No)	Local)	Mandated?	comments.	applicable.
Stormwater Management Plan	Yes	State & Local	Yes	Yes	-
Comment:					
<ul> <li>The Stormwater Management rules (Note that the required components of regional and design and performance standards for include groundwater recharge, runoff consideration, the use of nonstructural impervious surfaces, minimizing the use requirements for groundwater recharge of major development to be located wit without prior authorization from the D</li> </ul>	nd municipal stor new (proposed) a quantity controls, stormwater man e of stormwater p e, stormwater run thin or to discharg	mwater management pla levelopment. The design and runoff quality contr agement techniques inclu pipes, preserving natural noff quantity control, sto ge runoff from the major	ns and establish and performance rols. The rules en uding minimizing drainage featur rmwater runoff q development int	the stormwater e standards for 1 nphasize, as a p. g disturbance, m es, etc. The rule quality control, a to a 300-foot rip	management new development rimary inimizing s also set forth und the prohibition arian zone
<ul> <li>State/Local are responsible for this pla</li> </ul>	n, which was add	pted in 2006 entitled "S	torm Water Con	trol."	
Stormwater Pollution Prevention Plan	No	State & Local	No	-	-
associated with existing stormwater ru as required under the Federal Clean W operate small municipal separate storr municipalities, certain public complex or maintain highways. The permit prog nonpoint source pollutant loads from t ordinances (litter control, pet waste, w management plan and implementing or	Vater Act. These N n sewer systems, es such as univers gram establishes t hese sources. The ildlife feeding, pr	WPDES rules govern the known as MS4s. Under t sities and hospitals, and the Statewide Basic Requi Statewide Basic Requir oper waste disposal, etc.	e issuance of per his program, per State, interstate uirements that mu ements include n ); the developme	mits to entities t rmits must be sea and federal agen ust be implemen neasures such as	hat own or cured by ncies that operate ted to reduce s: the adoption of
basin cleaning); implementing solids a	nd floatables con	iring certain maintenand trol; locating discharge	e activities (such points and stenc	h as street sweep iling catch basir	oing and catch
basin cleaning); implementing solids a education component. Urban Water Management Plan	nd floatables con	iring certain maintenanc trol; locating discharge -	e activities (such points and stenc No	h as street sweep iling catch basir -	oing and catch
basin cleaning); implementing solids a education component.	nd floatables con	trol; locating discharge	points and stenc	iling catch basir	oing and catch
basin cleaning); implementing solids a education component. Urban Water Management Plan	nd floatables con	trol; locating discharge	points and stenc	iling catch basir	oing and catch
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment:	nd floatables con No	trol; locating discharge	points and stenc	iling catch basir	oing and catch
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan	nd floatables con No	trol; locating discharge	points and stenc	iling catch basir	oing and catch
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment:	nd floatables con No No	trol; locating discharge	points and stenc No No	iling catch basir	oing and catch
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan	nd floatables con No No	trol; locating discharge	points and stenc No No	iling catch basir	oing and catch
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (a including construction, relocation, and structures, and site preparation. This	No N	trol; locating discharge CAFRA regulates almo puildings or structures, a	No No Yes – if located in a coastal zone st all developme nd excavation, g Zone manageme	iling catch basin	ping and catch ns; and a public - - - st for activities rotection
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (A including construction, relocation, and	No N	trol; locating discharge CAFRA regulates almo puildings or structures, a	No No Yes – if located in a coastal zone st all developme nd excavation, g	iling catch basin	ping and catch ns; and a public - - - st for activities rotection
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (a including construction, relocation, and structures, and site preparation. This	No N	trol; locating discharge CAFRA regulates almo puildings or structures, a	No No Yes – if located in a coastal zone st all developme nd excavation, g Zone manageme	iling catch basin	ping and catch ns; and a public - - - st for activities rotection
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (a including construction, relocation, and structures, and site preparation. This Community Wildfire Protection Plan Comment: Comment:	No N	trol; locating discharge CAFRA regulates almo puildings or structures, a	No No Yes – if located in a coastal zone st all developme nd excavation, g Zone manageme	iling catch basin	ping and catch ns; and a public - - - st for activities rotection
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act ( including construction, relocation, and structures, and site preparation. This Community Wildfire Protection Plan Comment: Comment: Comment:	nd floatables con No	trol; locating discharge CAFRA regulates almo puildings or structures, a	No No Yes – if located in a coastal zone st all developme nd excavation, g Zone manageme No	iling catch basin	ping and catch ns; and a public - - - st for activities rotection
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (a including construction, relocation, and structures, and site preparation. This Community Wildfire Protection Plan Comment: Comment:	nd floatables con No No No No NJ.S.A. 13:19) or l enlargement of b law is implemente No	trol; locating discharge CAFRA regulates almo puildings or structures, a	No No Yes – if located in a coastal zone st all developme nd excavation, g Zone manageme No	iling catch basin	ping and catch ns; and a public - - - st for activities rotection
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act ( including construction, relocation, and structures, and site preparation. This Community Wildfire Protection Plan Comment: Comment: Comment: Comment: Transportation Plan Comment:	nd floatables con No	trol; locating discharge CAFRA regulates almo puildings or structures, a	points and stenc No No No Yes – if located in a coastal zone st all developme nd excavation, g Zone manageme No No	iling catch basin	ping and catch ns; and a public - - - st for activities rotection
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act ( including construction, relocation, and structures, and site preparation. This Community Wildfire Protection Plan Comment: Comment: Comment:	nd floatables con No	trol; locating discharge CAFRA regulates almo puildings or structures, a	points and stenc No No No Yes – if located in a coastal zone st all developme nd excavation, g Zone manageme No No	iling catch basin	ping and catch ns; and a public - - - st for activities rotection
basin cleaning); implementing solids a education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act ( including construction, relocation, and structures, and site preparation. This Community Wildfire Protection Plan Comment: Comment: Comment: Comment: Transportation Plan Comment:	nd floatables con No	trol; locating discharge CAFRA regulates almo puildings or structures, a	points and stenc No No No Yes – if located in a coastal zone st all developme nd excavation, g Zone manageme No No No No	iling catch basin	ping and catch ns; and a public - - - st for activities rotection
basin cleaning); implementing solids a         education component.         Urban Water Management Plan         Comment:         Habitat Conservation Plan         Comment:         Economic Development Plan         Comment:         Shoreline Management Plan         Comment:         • NJ Coastal Area Facility Review Act (a including construction, relocation, and structures, and site preparation. This         Community Wildfire Protection Plan         Comment:         • Comment:         • NJ Coastal Area Facility Review Act (for including construction, relocation, and structures, and site preparation. This         Community Wildfire Protection Plan         Comment:         • Comment:         • Comment:         • Agriculture Plan	nd floatables con No	trol; locating discharge CAFRA regulates almo puildings or structures, a	points and stenc No No No Yes – if located in a coastal zone st all developme nd excavation, g Zone manageme No No No No	iling catch basin	ping and catch ns; and a public - - - st for activities rotection





				Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Tourism Plan	No	-	No	-	-
Comment:					
Business Development Plan	No	-	No	-	-
Comment:					
Other: Open Space Plan	Yes	Local	No	No	-
Comment: • The Planning Board is responsible for November 2000 and revised and update Response/Recovery Planning			of Hampton Twp	. Code. The plan	n was adopted in
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	County & Local	Yes	Yes	-
<ul> <li>Each county and municipality in the Stancessary to implement the plan. Each Emergency Planning Guidelines have be subsequent scheduled review of the State</li> <li>The County is responsible for this plan</li> </ul>	Emergency Oper been adopted by t te Emergency Op	ations Plan shall be ado he State Office of Emerg erations Plan. L.1989, c	pted no later tha ency Manageme 2222, s.19.	n one year after nt and shall be	• the State evaluated at such
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-
Comment:					
Post-Disaster Recovery Plan	No	-	No	-	-
Comment:			•		
Continuity of Operations Plan	No	-	No	-	-
Comment:					
Public Health Plan	Yes	County	No	No	-
Comment:				•	
Other: Watershed Management or Protection Plan	Yes	State & Local	No	No	-
Comment: • The Planning Board is responsible for Control.	this plan in comp	liance with Chapter 109	9-9, 11 & 13 and	adopted 2006 S	torm Water

## Table 9.11-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes; Planning and Zoning; Construction Dept
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.	Yes; The Township completed a Housing Plan in 2019 with regard to its affordable housing obligation. The plan included a buildable land inventory that identified two major tracts of land for low and moderate income housing, with one located in the sewer service area.





#### ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board/Governing Body
Mitigation Planning Committee	Yes	Emergency Management Coordinator
Environmental Board / Commission	No	-
Open Space Board / Committee	Yes	Open Space Committee
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Reverse 9-1-1 (opt-in)
Maintenance program to reduce risk	Yes	Risk Management Consultant/Statewide Insurance
Mutual aid agreements	Yes	Local/County
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Township Engineer Harold E. Pellow
Engineers or professionals trained in building or infrastructure construction practices	Yes	Township Engineer Harold E. Pellow
Planners or engineers with an understanding of natural hazards	Yes	Township Engineer Harold E. Pellow
Staff with training in benefit/cost analysis	Yes	Township Administrator Jessica Caruso
Staff with training in green infrastructure	Yes	Township Engineer Harold E. Pellow
Staff with education/knowledge/training in low impact development	Yes	Township Engineer Harold E. Pellow
Surveyor	Yes	Township Engineer Harold E. Pellow
Stormwater engineer	Yes	Township Engineer Harold E. Pellow
Personnel skilled or trained in GIS applications	Yes	Township Engineer Harold E. Pellow
Local or state water quality professional	No	-
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	Emergency Management Coordinator Edward Hayes
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	Yes	Township Administrator Jessica Caruso
Resilience Officer	No	-
Other: NFIP Floodplain Administrator	Yes	Township Engineer Harold E. Pellow
Other: Professionals trained in conducting damage assessments	Yes	Construction Official and Local Sub-code Officials

#### Table 9.11-5. Administrative and Technical Capabilities

### FISCAL CAPABILITY

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

### Table 9.11-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes





Financial Resource	Accessible or Eligible to Use?
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
Incur Debt through Private Activity Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	Only in Private Communities
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	СОАН
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 Hampton.

### Table 9.11-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes; Edward Hayes (Emergency Management)
Do you have personnel skilled or trained in website development?	Yes; website creation in progress
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	Yes; COVID-19 info and HMP poll/survey
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; OEM Register Ready

### **COMMUNITY CLASSIFICATIONS**

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

### Table 9.11-8. 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	9	2020
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.

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	Strong
Invasive Species	Moderate
Nor'Easter	Strong
Severe Weather	Strong
Severe Winter Weather	Strong
Wildfire	Moderate

#### Table 9.11-9. Adaptive Capacity

Notes:

Strong = Capacity exists and is in use; Moderate = Capacity may exist, but is not used or could use some improvement;

Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

## NATIONAL FLOOD INSURANCE PROGRAM

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

#### Table 9.11-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Township Engineer & DPW
Who is your floodplain administrator? (name, department/position)	Harold E. Pellow & Associates, Inc.
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	September 29, 2011
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
When was the most recent Community Assistance Visit or Community Assistance Contact?	July 30, 2012
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?	No





Criterion	Response
If so, state what they are.	
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?	Continuing education and certification training on floodplain management would be welcomed by the FPA 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, however the County has considered joining and would attend a CRS seminar if offered locally.
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	7 policies \$2,256,500 insurance in force \$5,135 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	1 claim \$0 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

\*According to FEMA statistics as of October 13, 2020

## 9.11.5 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 Hampton'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 9.10-11 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 9.11-11. 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 <sup>rd</sup> and 24th.	Although the County was impacted, the Township did not report damages or impacts.
March 7, 2018	Winter Storm	No	An area of low pressure moving into the region caused considerable snowfall in Sussex County.	The Township did not experience property damage. The Township expanded funds for overtime for DPW.
May 2018	Rain/Wind Event	No	The County experienced a rain/wind event causing localized damage.	The Township did not experience property damage. The Township expanded funds for overtime for DPW.
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.	As of December 24, 2020, the Township has had 117 reported cases of COVID-19.

Source: FEMA 2020; NOAA-NCES 2020; Sussex County





## 9.11.6 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 Hampton 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 Hampton 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 Hampton has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

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

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

Source: FEMA 2019

#### **CRITICAL FACILITIES AND LIFELINES**

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

		Expo	osure
Name	Туре	1% Event	0.2% Event
22-23 Howell Mill Pond	Dams	Х	Х
22-24 Balesville Dam	Dams	Х	Х

#### Table 9.11-12. Critical Facilities and Lifelines Flood Exposure

Source: Sussex County Planning Partnership 2020

#### IDENTIFIED ISSUES AND PROBLEM AREAS

The jurisdiction has identified the following vulnerabilities within their community:

- The Township has two culverts that experience drainage issues. One culvert is located at the corner of Ike Williams Road and Dickson Road; the other is located at Old Swartswood Road.
- The Township's trees and forest stands have been impacted by Gypsy moths and lantern fly infestations. The past infestations have left a number of dead standing oaks.

#### 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 Hampton 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 Hampton 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 Hampton indicated that the risk for drought had decreased since 2016.

### Table 9.11-13. Township of Hampton Hazard Ranking

Dam Failure	Disease Outbrea	ak Drought	Earthqu	ake		ake		ake		ake		Flood	Geologic
Low	Medium	Low	Low	Low Med		Medium	Low						
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter	Severe Weather		Severe Winter Weather	Wildfire						
Medium	High	Medium	High	High		High	Medium						

## 9.11.7 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 9.10-15 and Table 9.10-16 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.

			Status (In Progress, No	Include in the 2021 HMP Update?			
2016 Acti	on Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
Hampton- 1 (new)	Ensure continuity of operations by purchasing and installing emergency generators	Township Administration	Completed				
Hampton- 2 (old #3)	Develop and implement an enhanced all-hazards, public outreach / education / mitigation information program on natural hazard risks and what they can do in the way of mitigation and preparedness, including flood insurance.	Township Administration	Ongoing Capability				

## Table 9.11-14. Status of Previous HMP Mitigation Actions





			Status (In Progress, No	Include in the 2021 HMP Update?			
2016 Acti	on Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
Hampton- 3 (new)	Purchase emergency vehicles – fire truck and ambulance	Township Fire and Rescue	In Progress	Х	2021- HamptonTwp- 002		
Hampton- 4 (new)	Stabilize Ike Williams and Old Swartswood Roads to ensure life safety and passage – roads are deteriorating due to erosion from water.	Township and NJDEP	No Progress	Х	2021- HamptonTwp- 001, 2021- HamptonTwp- 003		
Hampton- 5 (old #1)	Retrofit roof to meet current snow load standards on Department of Public Works facility located on Rumsey Way.	Township DPW	In Progress	х	2021- HamptonTwp- 004		
Hampton- 6 (old #3)	Implement Fire Wise program throughout Township.	OEM Coordinator	In Progress	Х	2021- HamptonTwp- 005		

The Township of Hampton did not identify any additional mitigation projects/activities that were completed.

## **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Township of Hampton 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 Hampton 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 9.10-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Hampton 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 9.10-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.11-15	<b>Proposed Hazard Mitigation</b>	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- Hampton Twp-001	Old Swartswood Road Culvert Mitigation	<b>Problem:</b> The culvert located at the northern intersection of CR-622 (Swartswood Road) and Old Swartswood is deteriorating. The 36" RCCP drain requires replacement and may cause the road to collapse. The shoulder of the road has longitudinal cracking, and there is significant erosion downstream of the culvert. The concrete is separating in several areas, and rip rap has fallen through the pipe separation. The runoff derives from two ponds at the Salesian Sisters property, where the channel runs downhill, under the road, the enters a small pond. From the pond, the channel runs underneath the Township and County Road.	Existing	Flood; Hurricane/ Tropical Storm; Nor'easter; Severe Weather; Severe Winter Weather	1, 2, 4, 6	Township DPW/Engi neer; DEP; Sussex County; private owners	HMGP; BRIC; Local match; County funds	Preserv ation of road functio ns	Medi um	3 ye ars	Hig h	SIP	SP
		<b>Solution:</b> The Township proposes to re- examine drainage in the area and implement mitigating measures for the culvert.											
2021- Hampton Twp-002	Ambulance Acquisition	<b>Problem</b> : The Township has been losing emergency vehicles due to aging equipment and loss of staff. The Township has identified a need for an ambulance.	g New	All Hazards	1, 3, 5, 6	Hampton Fire Rescue	AFG; Local match	Enhanc ed emerge ncy service s	Medi um	5 ye ars	Me diu m	SIP	ES
		<b>Solution:</b> The Township proposes to acquire a new ambulance.						s operati ons					
2021- Hampton Twp-003	Ike Williams/Dickso n Road Mitigation	<b>Problem</b> : Ike Williams Road and Dickson Road comprise a continuous 1.6-mile road that branches off Route 521. The terminus of these two roads occurs at a curve located adjacent to private properties, where a tributary of Little Swartswood Lake runs southward towards the lake. Due to the unique topography of the area, water runs off the surrounding hills and washes out the culvert located at the curve. The private property ownership complicates potential mitigation solutions.	Existing	Flood; Geological ; Hurricane/ Tropical Storm Nor'easter; Severe Weather	1, 2, 4, 6	Township DPW; DEP; Private owner	HMGP; BRIC; Transportat ion Trust Fund; Local match	Protect ion of public infrastr ucture and private	Medi um	3 ye ars	Hig h	SIP	SP



## Section 9.11 - Township of Hampton

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
		In addition to this culvert, Ike Williams Road shows longitudinal cracking along the roadway where the creek under the aforementioned intersection runs under Ike Williams Road approximately 150 feet to the southwest.											
		<b>Solution:</b> The Township proposes to study the drainage issue and implement mitigation measures to protect the roadway intersection, downstream properties, and the Ike Williams Road culvert. Potential mitigation measures could include retention basins.											
Hampton	DPW Roof Retrofit	<b>Problem</b> : The roof of the Township's DPW facility requires a retrofit for compliance.	Existing	Hurricane/ Tropical Storm Nor'easter; Severe Weather; Severe Winter Weather	1, 2, 4, 6	Township DPW; Engineer	Township funds; HMGP	Protect ion of DPW facility	Low			SIP	
		<b>Solution:</b> The Township proposes to examine the roof of the DPW and determine and implement design solutions for the roof.								l ye ar	Hig h		РР
2021- Hampton Twp-005	Firewise Participation	<b>Problem</b> : The Township has a significant wildfire risk that is exacerbated by dead trees resulting from pest infestations (gypsy moth and lantern flies) and federal/state land management issues.	Existing	Wildfire	1, 2, 3, 4, 5, 6	NJDEP; Hampton Fire Rescue	Township funds	Increas ed prepara tion/res ponsiv eness	No cost	1 ye ar	Hig h	ЕАР	ES
		<b>Solution:</b> The Township proposes to participate in the Firewise program to mitigate wildfire risk.						to wildfir es		ui			
		<b>Problem</b> : The Township buildings lack a capacity for OEM functions and storage of records related to emergency management.						Storag e; commu nicatio		CL.			
2021- Hampton Twp-006	OEM Trailer Acquisition	<b>Solution:</b> The Township proposes to acquire a trailer to house OEM functions and consolidate records that need to be retained from hazard events.	New	All hazards	3, 5, 6	Township OEM	FEMA; Township Funds	ns safety; consoli dation of records /FEM A	Low	Sh or- ter m	Me diu m	SIP	ES



			-	-							_		
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- Hampton Twp-007	Disaster Debris Management Plan	Problem: The Township lacks a debris management plan.         Solution: The Township will develop and adopt a Disaster Debris Management Plan.	N/A	All Hazards	4, 6	Hampton Twp Administrat ion	Municipal budget	Plan in place for debris manag ement	Staff time	l ye ar	Hig h	LPR	ES
2021- Hampton Twp-008	Flood Damage Prevention Ordinance	<ul> <li>Problem: The Township's Flood Damage Prevention Ordinance lacks the state mandated 1 foot of freeboard.</li> <li>Solution: The Township will update the ordinance to include 1 foot of freeboard for new construction in the SFHA.</li> </ul>	New	Flood	2	Administrat ion, FPA	Township budget	Increas ed flood protect ion for new constru ction	Staff time	6 months	Hig h	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

#### FMA Flood Mitigation Assistance Grant Program

BRIC

HMGP Hazard Mitigation Grant Program

Potential FEMA HMA Funding Sources:

#### Timeline:

The time required for completion of the project upon implementation

#### <u>Cost:</u> The estime

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.

Building Resilient Infrastructure and Communities

- 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.



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- HamptonTwp- 001	Old Swartswood Road Culvert Mitigation	1	1	1	1	1	1	-1	1	1	1	1	1	1	1	13	High
2021- HamptonTwp- 002	Ambulance Acquisition	1	1	1	1	1	1	-1	1	1	1	1	1	1	1	13	High
2021- HamptonTwp- 003	Ike Williams/Dickson Road Mitigation	1	1	1	1	1	1	-1	1	1	1	1	1	1	1	13	High
2021- HamptonTwp- 004	DPW Roof Retrofit	1	1	1	1	1	1	-1	1	1	1	1	1	1	1	13	High
2021- HamptonTwp- 005	Firewise Participation	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- HamptonTwp- 006	OEM Trailer Acquisition	0	1	0	1	1	1	-1	0	1	1	1	1	1	0	8	Medium
2021- HamptonTwp- 007	Disaster Debris Management Plan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- HamptonTwp- 008	Flood Damage Prevention Ordinance	0	1	1	1	1	1	1	1	1	0	1	1	1	1	12	High

Table 9.11-16. Summary of Evaluation and Action Priorities

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.





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

Table 9.11-17.	<b>Analysis of Mitigation</b>	Actions by Hazard and	Category
Tuble /itt 1/1	Thinking bib of Princigacion	metromo by mazar a ama	Gutegory

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



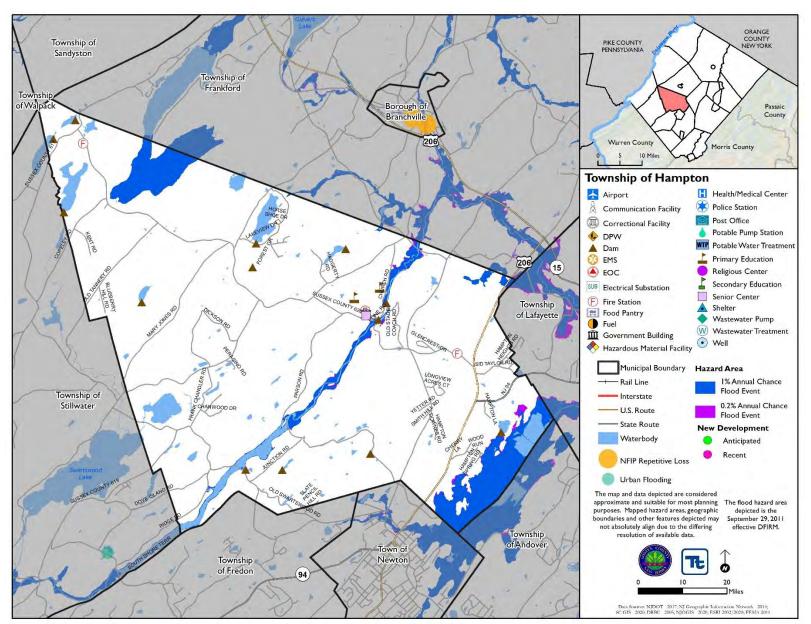
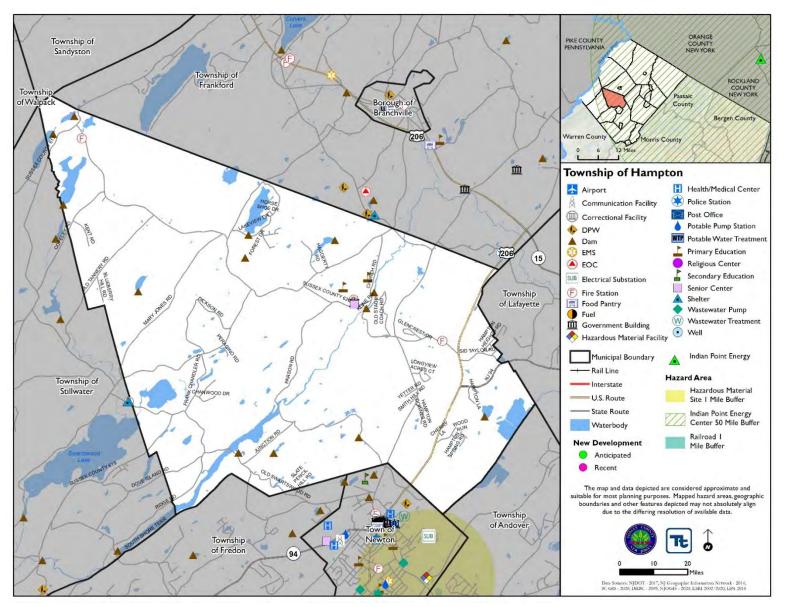


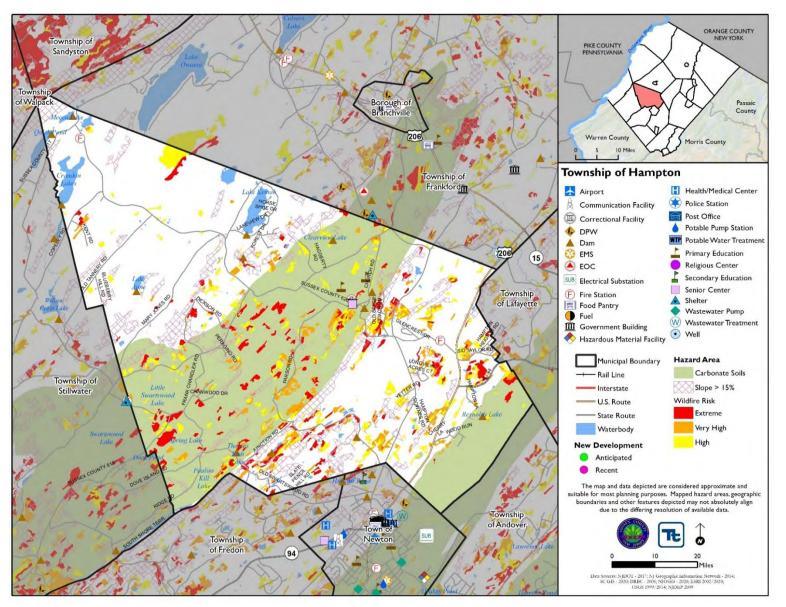
Figure 9.11-1. Township of Hampton Hazard Area Extent and Location Map 1





#### Figure 9.11-2. Township of Hampton Hazard Area Extent and Location Map 2





#### Figure 9.11-3 Township of Hampton Hazard Area Extent and Location Map 3

	Α	ction W	orksheet	;		
Project Name:	Old Swartswood Roa	d Culver	rt Mitigati	on		
Project Number:	2021-HamptonTwp-	2021-HamptonTwp-001				
	Ri	sk / Vul	nerabilit	у		
Hazard(s) of Concern:	Flood; Hurricane Tro	pical Sto	orm; Nor'	easter; Severe Weath	er; Severe Winter Weather	
Description of the Problem:	The culvert located at the northern intersection of CR-622 (Swartswood Road) and Old Swartswood is deteriorating. The 36" RCCP drain requires replacement and may cause the road to collapse. The shoulder of the road has longitudinal cracking, and there is significant erosion downstream of the culvert. The concrete is separating in several areas, and rip rap has fallen through the pipe separation. The runoff derives from two ponds at the Salesian Sisters property, where the channel runs downhill, under the road, the enters a small pond. From the pond, the channel runs underneath the Township and County Road.					
	Action or Projec	ct Intend	led for Ir	nplementation		
Description of the Solution:	measures for the cul-	The Township proposes to re-examine drainage in the area and implement mitigating measures for the culvert.				
Is this project related to a C Lifeline?	Critical Facility or	Yes		No 🛛		
Level of Protection:	N/A			ed Benefits avoided):	Preservation of road functions	
Useful Life:	30 years		Goals M	let:	1, 2, 4, 6	
Estimated Cost:	TBD		Mitigat	ion Action Type:	Structure and Infrastructure Project	
	Plan	for Imp	lementa			
Prioritization:	High			l Timeframe for entation:	5 years	
Estimated Time Required for Project Implementation:	1 year		Potenti Sources	al Funding ::	HMGP; BRIC; Local match; County funds	
Responsible Organization:	Township DPW/Eng DEP; Sussex County; private owners	ineer;		lanning iisms to be Used ementation if any:	Capital Improvement Plan	
	Three Alternatives	Consid	ered (inc	luding No Action)		
	Action		Es	timated Cost	Evaluation	
Alternatives:	No Action			\$0	Current problem continues	
	Road abandonme Culvert Mitigatio			Low TBD	Not logistically feasible Technically feasible	
	Progress Re		r nlan ma			
Date of Status Report:			-prom-me			
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						

\_\_\_\_





Action Worksheet							
Project Name:	Old Swartswood Road Culvert Mitigation						
Project Number:	2021-HamptonTwp-00	1					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1						
Property Protection	1	Culvert Mitigation will protect road and downstream properties					
Cost-Effectiveness	1						
Technical	1						
Political	1						
Legal	1						
Fiscal	-1	Project requires funding					
Environmental	1						
Social	1	Project prevents social disruption from utility interruption					
Administrative	1						
Multi-Hazard	1	Flood; Hurricane Tropical Storm; Nor'easter; Severe Weather; Severe Winter Weather					
Timeline	1						
Agency Champion	1	Township will champion					
Other Community Objectives	1						
Total	13						
Priority (High/Med/Low)	High						





## 12/16/20 Old Swattsword Rd DRHIM



outlet down hill





Upstream - Recently duy out by property owner - Roct exposure



	A	ction W	orkshee	t			
Project Name:	Ike Williams/Dickso	n Road M	litigation	L			
Project Number:	2021-HamptonTwp-	2021-HamptonTwp-003					
	Ri	sk / Vul	nerabili	ty			
Hazard(s) of Concern:	Flood; Hurricane Tro	opical St	orm; Nor'	easter; Severe Weath	ner; Severe Winter Weather		
Description of the Problem:	Ike Williams Road and Dickson Road comprise a continuous 1.6-mile road that branches off Route 521. The terminus of these two roads occurs at a curve located adjacent to private properties, where a tributary of Little Swartswood Lake runs southward towards the lake. Due to the unique topography of the area, water runs off the surrounding hills and washes out the culvert located at the curve. The private property ownership complicates potential mitigation solutions. In addition to this culvert, Ike Williams Road shows longitudinal cracking along the roadway where the creek under the aforementioned intersection runs under Ike Williams Road approximately 150 feet to the southwest.						
	Action or Project	ct Inten	ded for li	mplementation			
Description of the Solution:	to protect the roadw	The Township proposes to study the drainage issue and implement mitigation measures to protect the roadway intersection, downstream properties, and the Ike Williams Road culvert. Potential mitigation measures could include retention basins.					
Is this project related to a C Lifeline?	Critical Facility or	Yes		No 🖂			
Level of Protection:	N/A			ted Benefits avoided):	Protection of public infrastructure and private		
Useful Life:	30 years		Goals Met:		1, 2, 4, 6		
Estimated Cost:	TBD		Mitigation Action Type:		Structure and Infrastructure Project		
	Plan	for Imp	lementa				
Prioritization:	High		Desired Timeframe for Implementation:		3 years		
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		HMGP; BRIC; Transportation Trust Fund; Local match		
Responsible Organization:	Township DPW/Eng DEP; Sussex County; private owners		Local Planning Mechanisms to be Used in Implementation if any:		Capital Improvement Plan		
	Three Alternatives	Consid		<i>(</i>			
	Action No Action		E:	stimated Cost \$0	Evaluation Current problem continues		
Alternatives:	Road abandonm	ent		Low	Not logistically feasible		
	Culvert Mitigation TBD Technic				Technically feasible		
	Progress Re	port (fo	r plan m	aintenance)			
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							

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	Action Worksheet							
Project Name:	Ike Williams/Dickson Road Mitigation							
Project Number:	2021-HamptonTwp-003	3						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate						
Life Safety	1							
Property Protection	1	Culvert Mitigation will protect road and downstream properties						
Cost-Effectiveness	1							
Technical	1							
Political	1							
Legal	1							
Fiscal	-1	Project requires funding						
Environmental	1							
Social	1	Project prevents social disruption from utility interruption						
Administrative	1							
Multi-Hazard	1	Flood; Hurricane Tropical Storm; Nor'easter; Severe Weather; Severe Winter Weather						
Timeline	1							
Agency Champion	1	Township will champion						
Other Community Objectives	1							
Total	13							
Priority (High/Med/Low)	High							





	Α	ction W	orkshee	t		
Project Name:	DPW Roof Retrofit	DPW Roof Retrofit				
Project Number:	2021-HamptonTwp-	004				
	Ri	sk / Vul	nerabili	ty		
Hazard(s) of Concern:	Hurricane/Tropical S	Storm No	or'easter;	Severe Weather; Sev	vere Winter Weather	
Description of the Problem:	The roof of the Town	ıship's D	PW facili	ty requires a retrofit	for compliance.	
	Action or Projec	ct Intend	ded for I	mplementation		
Description of the Solution:		The Township proposes to examine the roof of the DPW and determine and implement design solutions for the roof.				
Is this project related to a C Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌		
Level of Protection:	N/A			ted Benefits avoided):	Protection of DPW facility	
Useful Life:	50 years		Goals Met:		1, 2, 4, 6	
Estimated Cost:	TBD		Mitigation Action Type:		Structure and Infrastructure Project	
	Plan	for Imp	lementa			
Prioritization:	High		Desired Timeframe for Implementation:		1 year	
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		Township funds; HMGP	
Responsible Organization:	Township DPW; Engi	ineer	Local Planning Mechanisms to be Used in Implementation if any:		Capital Improvement Plan	
	Three Alternatives	Consid				
	Action		Estimated Cost		Evaluation	
Alternatives:	No Action	4	\$0		Current problem continues	
	Facility Replacem Roof retrofit	ient	High TBD		Not cost effective Technically feasible	
	Progress Rej	nort (fo	r plan m			
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						

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	Action Worksheet							
Project Name:	DPW Roof Retrofit							
Project Number:	2021-HamptonTwp-004	ŀ						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate						
Life Safety	1	Project will protect workers in facility						
Property Protection	1	Project will protect DPW facility						
Cost-Effectiveness	1							
Technical	1							
Political	1							
Legal	1							
Fiscal	-1	Project requires funding						
Environmental	1							
Social	1	Project prevents social disruption from loss of facility						
Administrative	1							
Multi-Hazard	1	Hurricane/Tropical Storm Nor'easter; Severe Weather; Severe Winter Weather						
Timeline	1							
Agency Champion	1	Township will champion						
Other Community Objectives	1							
Total	13							
Priority (High/Med/Low)	High							





	Α	ction W	orkshee	t			
Project Name:	OEM Trailer Acquisit	DEM Trailer Acquisition					
Project Number:	2021-HamptonTwp-	006					
	Ri	sk / Vul	nerabili	t <b>y</b>			
Hazard(s) of Concern:	All hazards						
Description of the Problem:	The Township buildi to emergency manag	-	a capacit	y for OEM functions a	and storage of records related		
	Action or Projec	t Inten	ded for li	nplementation			
Description of the Solution:		The Township proposes to acquire a trailer to house OEM functions and consolidate records that need to be retained from hazard events.					
Is this project related to a C Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌			
Level of Protection:	N/A			ted Benefits avoided):	Storage; communications safety; consolidation of records		
Useful Life:	30 years		Goals Met:		3, 5, 6		
Estimated Cost:	Low		Mitigat	ion Action Type:	Structure and Infrastructure Project		
	Plan	for Imp	lementa				
Prioritization:	Medium		Desired Timeframe for Implementation:		Short-term		
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		FEMA; Township Funds		
Responsible Organization:	Township OEM		Local Planning Mechanisms to be Used in Implementation if any:		Capital Improvement Plan		
	Three Alternatives	Consid					
	Action		E	stimated Cost	Evaluation		
Alternatives:	No Action			\$0	Current problem continues		
	Building addition			High TBD	Not cost effective Technically feasible		
	Progress Rej		r nlan m				
Data of Status Doport	I Togress Ke	011 110	r plan in				
Date of Status Report: Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





Action Worksheet							
Project Name:	OEM Trailer Acquisition	OEM Trailer Acquisition					
Project Number:	2021-HamptonTwp-006	5					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	0						
Property Protection	1	Protection of records					
Cost-Effectiveness	0						
Technical	1						
Political	1						
Legal	1						
Fiscal	-1	Project requires funding					
Environmental	0						
Social	1	Project prevents social disruption from loss of facility					
Administrative	1						
Multi-Hazard	1	Project will protect records from all types of hazard events					
Timeline	1						
Agency Champion	1	Township will champion					
Other Community Objectives	0						
Total	8						
Priority (High/Med/Low)	Medium						

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# 9.12 TOWNSHIP OF HARDYSTON

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

## 9.12.1 Hazard Mitigation Planning Team

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

Primary Poin	nt of Contact	Alternate Point of Contact				
Name / Title: William Hicker Address: 149 Wheatsworth R 07419 Phone Number: (973) 615-56 Email: whickerson@gmail.co NFIP Floodplain Administ Name / Title: Joseph Butto, C	son, OEM Coordinator oad, Suite A, Hardyston, NJ 87 m <b>rator</b>	Name / Title: Carrine Piccolo-Kaufer, Township Manager/Planner Address: 149 Wheatsworth Road, Suite A, Hardyston, NJ 07419 Phone Number: (973) 823-7020 Email: cpiccolo@hardyston.com				
	ad Suite A Hardyston NJ 0741 20	9				
Name	Title	Method of Participation				
William Hickerson	OEM Coordinator	Attended the kickoff meeting, annex training, risk assessment meeting and mitigation strategy workshop. Provided data and information for the annex update. Reviewed annex*				
Carrine Piccolo-Kaufer	Township Manager and Planner	Alternate point of contact, reviewed annex*				
Joseph Butto	Construction Official	NFIP Floodplain Administrator, reviewed annex*				
Michael Vreeland	Engineer	Reviewed annex*				
Grant W. Rome	Fiscal/CFO	Reviewed annex*				
Robert Shultz	Public Works	Reviewed annex*				
Scott M. Lobban	Police Chief	Reviewed annex*				
Raymond Marion	Fire Department	Reviewed annex*				

#### Table 9.12-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





## 9.12.2 Jurisdiction Profile

The Township of Hardyston is located in northeastern Sussex County. It is bordered to the north by the Townships of Vernon and Wantage, to the south by the Township of Sparta and Morris County, to the east by Vernon Township and Morris County, and to the west by Lafayette Township. The Township covers an area of approximately 32.6 square miles. There are numerous streams located within the Township and include: Wallkill River, Hamburg Creek, Mud Pond Outlet Stream, Pequannock River, Lake Stockholm Brook, Franklin Pond Creek, Beaver Run, and Black Creek. The following unincorporated communities are located within the Township: Beaver Run, North Church, Big Springs, Rudeville, and Beaver Lake.

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

## 9.12.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction's overall risk to its hazards of concern. Table 9.11-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. The figures at the end of this annex illustrate the geographically-delineated hazard areas and the location of potential new development.

Type of Development	20	15	20	016	2	017	2018		2	019
	Numb	er of Buil	ding Per	g Permits for New Construction Issued Since the Previous HMP						
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single and Two-Family Units	6	0	2	0	3	0	13	0	0	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	1	0	3	0	0	0	2	0	0	0
Property or Development Name	0	pe of opment		<b>Location</b> of Units / (address and/or block tructures and lot)		Known Hazard Zone(s)*		Description / Status of Development		
		Recent	Major I	Developm	ent and Infi	astructure fro	om 2015 to 1	Present		
Crystal Springs - Shotmeyer	Single F	amily	38		Coventry, Woodcot, Tarrington, Blocks 16.28,16.30, 16.34, 16.37		n, Blocks		Under Constru	ction
Crystal Springs – Shotmeyer	Multi-Fa	amily	1 (18 )	Units)		Tarrington Road, Block		ncident ea, Nuclear azard Area, Soil,	Approve	ed

## Table 9.12-2. Recent and Expected Future Development





Emerald Estates	Single Family	4	Emerald Drive/Ruby Court, Block 63, Lots 26.15,26.16,26.17,27.01	Railway Incident Hazard Area, Hazardous Material Incident Area, Nuclear Incident Hazard Area, Carbonate Soil, Steep Slopes, Wildfire	Under Construction
Estell Manor	Single Family	3	Estell Drive, Block 75 Lot 11.03	Railway Incident Hazard Area, Hazardous Material Incident Area, Nuclear Incident Hazard Area, Carbonate Soil, Wildfire	Under Construction
N/A	None	Under construction	Block 75.01 Lots 1 & 16	Railway Incident Hazard Area, Hazardous Material Incident Area, Nuclear Incident Hazard Area, Carbonate Soil, Wildfire	Under Construction
Ridgefield Commons	Single Family - Townhouse	8	Brookview, Block 67.23 Lots 1-8	Nuclear Incident Hazard Area, Carbonate Soil, Wildfire	Under Construction
	Known or Anticipa	ted Major Develo	opment and Infrastructur	e in the Next Five (5) Yea	ars
Crystal Springs – Balmorale	Single Family	15	Exeter Lane/Sutton Court	Railway Incident Hazard Area, Nuclear Incident Hazard Area, Carbonate Soil, Steep Slopes, Wildfire	Anticipated
Brecia Farms	Single Family	18	Anthony Lane/Davon Court	Hazardous Material Incident Area, Nuclear Incident Hazard Area, Carbonate Soil, Steep Slopes, Wildfire	Anticipated

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

SFHA = Special Flood Hazard Area

## 9.12.4 Capability Assessment

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

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





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

## PLANNING, LEGAL AND REGULATORY CAPABILITY

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

		Authority that		been integra	ts of the HMP ated into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
<ul> <li>Comment:</li> <li>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</li> <li>The Construction Office is responsible for this code in compliance with State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)</li> <li>The Township's building code is found in Chapter 62 (Building Construction) of the municipal code. It was originally adopted in 1972 and revised in 1998 and 2000. Prior to the issuance of a building permit for any single-family home, the applicant must submit two copies of a detailed site plan to the building inspector. The site plan must show swales, brooks, streams, springs, retaining walls, terraces, sidewalks, slopes, major rock formations, existing easements, building line setback and elevation at the curb, where existing, and, if no curb, elevation at existing opposite lot corners and center line of driveway where building is to be</li> </ul>					
located, and all provisions for the prope	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<ul> <li>Comment:</li> <li>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.</li> <li>The Zoning Board is responsible for this code in compliance with the Town Council.</li> <li>The Zoning Code is found in Chapter 185 of the Township's municipal code. It was adopted in 1972 and revised in 1998 and 2021. There are several purposes to the code including securing safety from fire, flood, panic and other natural and man-made disasters.</li> </ul>					
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance r the filing of such plats with the county re condition for the issuance of a permit fo or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this	equire approval of coording officer an r any development exempt from such s the planning boar of this act . Dictate ounty planning boa nd for the approva	subdivision plats by re d approval of site plans , except that subdivision ite plan review and app d whenever the board o ed by the Municipal Lan ard shall provide for th	l ordinance; cou solution of the p s by resolution o n or individual l roval; provided f adjustment has nd Use Law. NJ e review of all s	lanning board as f the planning bo ot applications fo that the resolutio jurisdiction over Statute 40:27-6.2 ubdivisions of lan	a condition for ard as a r detached one on of the board r a subdivision 2 - the board of nd within the

## Table 9.12-3. Planning, Legal and Regulatory Capability



		Authority that		been integra	ts of the HMP ated into your ances/plans?	
			Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
<ul> <li>Chapter 158 (Subdivision of Land) was first adopted in 1972 and amended in 1998. The purpose of this code is to provide rules, regulations and standards to guide land subdivision in the Township in order to promote the public health, safety, convenience and general welfare of the Township. It shall be administered to ensure the orderly growth and development, conservation, protection and proper use of land and adequate provision for circulation, utilities and services.</li> <li>The Zoning Board and Planning Board are responsible for administering this code.</li> </ul>						
Stormwater Management	Yes	State and Local	Yes	Yes	-	
Comment: See Title 7 of the NJ Administrative Cod The Town Council is responsible for this The Township's code contains a section (Zoning) of the municipal code. The pur controls for major development in the To take into account existing site conditions seasonal high water table; soil type, per- prone carbonate rocks (limestone).	s ordinance in com regarding stormw pose of the code is swnship. Design st s including enviror	ater management in acc s to establish minimum s tandards for stormwater mentally critical areas,	stormwater man r management m : wetlands; flood	agement require leasures should b l-prone areas; sl	ments and be designed to opes; depth to	
Post-Disaster Recovery	No	-	No	-	-	
Comment:		ı		L		
Real Estate Disclosure	No	State, Division of Consumer Affairs	Yes	-	-	
<ul> <li>N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real improvements, fees for services and ame schools, fire and police, as well as any h</li> </ul>	Estate Commissio inities, the type of a azards, risks or m	m. The POS provides in title and ownership inte uisances in or around th	formation such rest being offere e subdivision. Yes – if municipality	as estimated com ed, its proximity to	pletion dates for	
Growth Management	Yes	State	has a Planning Board	No	-	
Comment: • State Mandated on a municipal level. Se Redevelopment Plan provides for the del of state environmental regulations make • The Town Council is responsible for the	lineation of Growt s the Plan Endors	h Areas and Environs; ement process a growth	Use of the endor management st	sed plans in the		
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
<ul> <li>Comment:</li> <li>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 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.</li> </ul>						
Environmental Protection	No	-	No	-	-	
Comment:		<u> </u>				
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	2021- Hardyston- 009	





	Authority that			been integra	s of the HMP ted into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of J floodplain ordinances of each municipa the NFIP requires a floodplain ordinance effective June 20, 2016. • The Construction official is responsible. • The ordinance lacks discussion of the st	flood losses. They lity must be review ce. Regulations for for this ordinance	do not require local ad eed for compliance with r the Flood Control Ha in compliance with Cha	option but as en these regulation zards Act were a apter 96.	forced by the NJE is. In addition, po	DEP, the articipation in
Wellhead Protection	No	-	No	-	-
Comment:					
Emergency Management	Yes	Local	No	No	_
Comment: • Chapter 19 of the municipal code, adop coordinator and council.	ted in 1972 and re	vised in 1998. The chap	oter identified th	e emergency man	agement
Climate Change	No	-	No	-	-
Comment:					
Disaster Recovery Ordinance	No	-	No	-	-
Comment:					
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:		1		11	
Other:	No	-	No	-	-
Comment:					
Planning Documents					
Comprehensive / Master Plan	Yes	State	Yes	Yes	_
<ul> <li>2018 Revised NJ Statute 40:27-2; the control the county. The master plan of a county, show the county planning board's reconting among other things, the general location developments, parkways, playgrounds, J the general location and extent of forest water supply, sanitary and drainage fact important to the development of the count municipalities within the county in any radvise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plant Further, all zoning ordinances must be control to the HMP update.</li> <li>Portions of the Township are located in Plan and supports elements and objectives.</li> </ul>	with the accompa- mendations for the m, character, and efforests, reservation s, agricultural area- cilities, or the prote- nty. The county pla- matters whatsoever ers with respect to L and Use Law (Ma- consistent with the his plan, which wa the Highlands Reg	nying maps, plats, char e development of the te extent of streets or road ns, parks, airports, and as, and open-develop ection of urban develop unning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no s adopted in 2014. Seve gions. The master plan o	ts, and descripti rritory covered s, viaducts, brid other public wa eent areas for pu ment, and such burage the co-op e integrity of the lopment program Aug 1, 1976 40: are a master pla t be benefitted fi eral objectives oj	ve and explanator by the plan, and n ges, waterway ar ys, grounds, place rposes of conserv other features as eration of the loc county master pl ns and budgets fo 55D-28 provides n and update it ev om a presumption f the plan align wa	ry matter, shall nay include, nd waterfront es and spaces; ation, food and may be al an and to or capital the required wery 6 years. n of validity. ith those
Capital Improvement Plan	Yes	Town Council	No	Yes	-
Comment: • The Town Manager is responsible for th • The Township's municipal budget outlin					There is a line
item for various capital improvements;	<u>howeve</u> r, details re		ents is not listed	<u>in the 2</u> 020 budge	

	Au	Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Floodplain or Watershed Plan	Yes	State	No	Yes	-
Comment: • The Planning Board is responsible for t	hig plan This plan	in a naut of the Manton	Dlan		
Stormwater Management Plan	Yes	State	Yes	Yes	-
Comment:					
the required components of regional an design and performance standards for r include groundwater recharge, runoff q consideration, the use of nonstructural impervious surfaces, minimizing the use requirements for groundwater recharge of major development to be located with without prior authorization from the De The Township's Municipal Stormwater Township to address stormwater-relate protecting public safety and reducing in	new (proposed) dev uantity controls, ar stormwater manage of stormwater pip e, stormwater rung hin or to discharge spartment under the Management Plan d impacts. Several npacts of hazards (	elopment. The design a nd runoff quality contro ement techniques includ es, preserving natural a ff quantity control, storn runoff from the major a e Flood Hazard Area Co was adopted in March goals of the plan align:	nd performance ils. The rules em ding minimizing drainage feature. nwater runoff qu levelopment into ontrol Act Rules, 2005. The plan s with the goals	standards for new phasize, as a prin disturbance, minu s, etc. The rules a uality control, and a 300-foot ripar , N.J.A.C. 7:13. documents the stu	w development nary imizing ulso set forth d the prohibitio ian zone rategy for the
The Town Council is responsible for thi	is plan.	<i></i> ,			
Stormwater Pollution Prevention Plan	Yes	-	Yes	-	-
or maintain highways. The permit prog nonpoint source pollutant loads from th ordinances (litter control, pet waste, wi management plan and implementing ord	ese sources. The Si Idlife feeding, prop	tatewide Basic Requirer	ments include me		
basin cleaning); implementing solids ar		ng certain maintenance	activities (such	as street sweepin	stormwater
basin cleaning); implementing solids ar education component.		ng certain maintenance	activities (such	as street sweepin	stormwater
basin cleaning); implementing solids an education component. Urban Water Management Plan	nd floatables contro	ng certain maintenance ol; locating discharge p	activities (such oints and stencil	as street sweepin ling catch basins;	stormwater
basin cleaning); implementing solids ar education component. Urban Water Management Plan Comment:	nd floatables contro	ng certain maintenance ol; locating discharge p	activities (such oints and stencil	as street sweepin ling catch basins;	stormwater
basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan	nd floatables contro	ng certain maintenance ol; locating discharge p	activities (such oints and stencil No	as street sweepin ling catch basins;	stormwater
basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment:	nd floatables contro	ng certain maintenance ol; locating discharge p	activities (such oints and stencil No	as street sweepin ling catch basins;	stormwater
basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan	No No	ng certain maintenance ol; locating discharge p - -	activities (such oints and stencil No No	as street sweepin ling catch basins;	stormwater
basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan	No No	ng certain maintenance ol; locating discharge p - -	activities (such oints and stencil No No	as street sweepin ling catch basins;	stormwater
basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment:	No N	ng certain maintenance ol; locating discharge p - - Local - CAFRA regulates almost ldings or structures, an	Activities (such oints and stencil No No No Yes – if located in a coastal zone t all developmen d excavation, gr	as street sweepin ing catch basins; - - - t along the coast ading, shore prod	stormwater g and catch and a public - - - - for activities tection
basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and	No N	ng certain maintenance ol; locating discharge p - - Local - CAFRA regulates almost ldings or structures, an	Activities (such oints and stencil No No No Yes – if located in a coastal zone t all developmen d excavation, gr	as street sweepin ing catch basins; - - - t along the coast ading, shore prod	stormwater g and catch and a public - - - - for activities tection
basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and structures, and site preparation. This la	No N	ng certain maintenance ol; locating discharge p - - Local - CAFRA regulates almost ldings or structures, an	activities (such oints and stencil         No         No         No         Yes – if located in a coastal zone         tall developmend excavation, grone managemen	as street sweepin ing catch basins; - - - t along the coast ading, shore prod	stormwater g and catch and a public - - - - for activities tection
basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and structures, and site preparation. This la Community Wildfire Protection Plan Comment:	No N	ng certain maintenance ol; locating discharge p - - Local - CAFRA regulates almost ldings or structures, an	activities (such oints and stencil         No         No         No         Yes – if located in a coastal zone         tall developmend excavation, grone managemen	as street sweepin ing catch basins; - - - t along the coast ading, shore prod	stormwater g and catch and a public - - - - for activities tection
basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and structures, and site preparation. This le Community Wildfire Protection Plan Comment: Comment: Comment:	No No No No No Ves No Ves No Ves Ves Ves	ng certain maintenance l; locating discharge p - Local <i>Local</i> <i>AFRA regulates almost</i> <i>Idings or structures, an</i> <i>through NJ's Coastal Zu</i> - Local	Activities (such oints and stencil No No Yes – if located in a coastal zone t all developmen d excavation, gr one managemen No	as street sweepin ing catch basins; - - - t along the coast ading, shore prot t Rules N.J.A.C. 7 -	stormwater g and catch and a public - - - for activities tection 7:7E-1 et seq. -
basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan Comment: Economic Development Plan Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and structures, and site preparation. This la	No No No No No Ves No Ves No Ves Ves Ves	ng certain maintenance l; locating discharge p - Local <i>Local</i> <i>AFRA regulates almost</i> <i>Idings or structures, an</i> <i>through NJ's Coastal Zu</i> - Local	Activities (such oints and stencil No No Yes – if located in a coastal zone t all developmen d excavation, gr one managemen No	as street sweepin ing catch basins; - - - t along the coast ading, shore prot t Rules N.J.A.C. 7 -	stormwater g and catch and a public - - - for activities tection 7:7E-1 et seq. -





		Authority that		been integra	ts of the HMP nted into your ances/plans?	
	<b>Do you have</b> <b>this?</b> (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Agriculture Plan	Yes	Local	No	Yes	-	
Comment: • The Planning Board is responsible for the formation of the second s	his nlan which is a	part of the Master Play	1			
Climate Action Plan	No	-	No	-	-	
Comment:						
Tourism Plan	No	-	No	-	-	
Comment:						
Business Development Plan	No	-	No	-	-	
Comment: • While there is no plan in place, the Town business and industry as well as retainin	1	1	isory Commissio	n that assists in a	uttracting new	
Other: Open Space Plan	Yes	Local	No	Yes	-	
Comment: • The Planning Board is responsible for the formation of the for	his plan, which is a	part of the Master Pla	n.			
Stream Corridor Management Plan	Yes	Local	No	Yes	-	
Comment: • The Planning Board is responsible for the second seco	his nlan which is c	nart of the Master Pla	п			
Watershed Management or Protection Plan	Yes	Local	No	Yes	-	
Comment:						
The Planning Board is responsible for the Response/Recovery Planning	his plan, which is a	a part of the Master Pla	<i>n</i>			
Comprehensive Emergency Management Plan	Var	Terretia OEM	Vaa	Var		
(CEMP) / Emergency Operations Plan (EOP) Comment:	Yes	Township OEM	Yes	Yes	-	
<ul> <li>Each county and municipality in the State necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State</li> <li>This plan was adopted in 2014.</li> <li>The Office of Emergency Management is</li> </ul>	<ul> <li>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 suc subsequent scheduled review of the State Emergency Operations Plan. L.1989, c.222, s.19.</li> </ul>					
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Township OEM	No	Yes	-	
Comment: • Included as part of the Township's EOP		-				
Post-Disaster Recovery Plan	No	-	No	-	-	
Comment:						
Continuity of Operations Plan	No	-	No	-	-	
Comment:						
Public Health Plan	Yes	County	No	Yes	-	
<i>Comment:</i> • Performed at the county level.				-		
Other	No	-	No	-	-	
Comment:						

## Table 9.12-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Building Department





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

#### ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability	•	
Planning Board	Yes	Planning Board and Zoning Bord of Adjustment
Mitigation Planning Committee	Yes	OEM
Environmental Board / Commission	Yes	Clean Communities Program
Open Space Board / Committee	No	-
Economic Development Commission / Committee	Yes	Hardyston Township Economic Development Advisory Commission - composed of volunteer Township residents, assists in attracting new business and industry as well as retaining established businesses. Their mission is to maintain the quality of life of our residents by stabilizing and expanding our local tax base.
Warning Systems / Services (mass notification system, outdoor warning signals)	Yes	Swift911 and PSAP
Maintenance program to reduce risk	Yes	Town Manager Insurance related
Mutual aid agreements	Yes	Fire Department, Police and EMS
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Deputy Manager/planner and Construction
Engineers or professionals trained in building or infrastructure construction practices	Yes	Construction
Planners or engineers with an understanding of natural hazards	Yes	Deputy Manager/Planner
Staff with training in benefit/cost analysis	Yes	OEM and Deputy Manager
Staff with training in green infrastructure	Yes	Land Use/Town Manager
Staff with education/knowledge/training in low impact development	Yes	Town Manager
Surveyor	No	-
Stormwater engineer	Yes	Township Engineering dept
Personnel skilled or trained in GIS applications	Yes	Zoning
Local or state water quality professional	No	Use Sussex County BOH
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	OEM
Watershed planner	Yes	Town planner/Manager
Environmental specialist	No	-
Grant writers	Yes	OEM and Deputy Manager
Resilience Officer	No	-





Staff/Personnel Resource	Available?	Department/Agency/Position
Other: NFIP Floodplain Administrator	Yes	Construction Official
Other: Professionals trained in conducting damage assessments	Yes	OEM and Construction

### FISCAL CAPABILITY

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

#### Table 9.12-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?	
Community Development Block Grants (CDBG, CDBG-DR)	Yes; Hardyston Town Council	
Capital Improvements Project Funding	Yes; Hardyston Town Council	
Authority to Levy Taxes for Specific Purposes	Yes; Hardyston Town Council	
User Fees for Water, Sewer, Gas or Electric Service	Yes; Hardyston Town Council	
Incur Debt through General Obligation Bonds	Yes; Hardyston Town Council	
Incur Debt through Special Tax Bonds	Yes; Hardyston Town Council	
Incur Debt through Private Activity Bonds	Yes; Hardyston Town Council	
Withhold Public Expenditures in Hazard-Prone Areas	No	
State-Sponsored Grant Programs	No	
Development Impact Fees for Homebuyers or Developers	No	
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No	
Other: Open Space Acquisition Funding Programs	Yes; Hardyston Town Council	

### EDUCATION AND OUTREACH CAPABILITY

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

#### Table 9.12-7. Education and Outreach Capabilities

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

#### **COMMUNITY CLASSIFICATIONS**

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





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

#### Table 9.12-8. Community Classifications

### ADAPTIVE CAPACITY

Adaptive capacity is defined as "the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences" (IPCC 2014). In other words, it describes a jurisdiction's current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction's rating.

#### Table 9.12-9. Adaptive Capacity

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

Notes:

Strong = Capacity exists and is in use; Moderate = Capacity may exist, but is not used or could use some improvement;

Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

#### NATIONAL FLOOD INSURANCE PROGRAM

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





Criterion	Response	
What local department is responsible for floodplain management?	Building Department	
Who is your floodplain administrator? (name, department/position)	Joe Butto, Construction Official	
Are any certified floodplain managers on staff in your jurisdiction?	No	
What is the date that your flood damage prevention ordinance was last amended?	July 5, 2011	
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	This program exceeds the minimum requirements set by the FEMA and the State. The master plan and planning board have a review for flood zones during application process.	
When was the most recent Community Assistance Visit or Community Assistance Contact?	January 10, 1995	
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? -If so, state what they are.	No	
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what they are.	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?	No	
Does your jurisdiction participate in the Community Rating System (CRS)? -If yes, is your jurisdiction interested in improving its CRS Classification? -If no, is your jurisdiction interested in joining the CRS program?	No, and the community has not considered joining CRS at this time.	
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	8 policies \$2,338,000 insurance in force \$3,498 premium in force	
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	2 claims \$60,787 in payments	
Do you maintain a list of properties that have been damaged by flooding?	No	
Do you maintain a list of property owners interested in flood mitigation?	No	

#### Table 9.12-10. National Flood Insurance Program Compliance

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

#### **OPPORTUNITIES FOR FUTURE INTEGRATION**

- **Firewise Program:** The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program (2021-Hardyston-002).
- **Disaster Debris Management Plan:** The Township will develop a debris management plan that will assist the municipality when they need to facilitate response and recovery after a debris-causing incident. The plan will provide direction to facilitate and coordinate the management of debris following a disaster (2021-Hardyston-008).
- **Flood Damage Prevention Ordinance:** The Township will update its flood damage prevention ordinance to meet the New Jersey requirement of one foot of freeboard (2021-Hardyston-009).





## 9.12.5 Hazard Event History Specific to the Jurisdiction

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

#### Table 9.12-11. Hazard Event History

Date(s) of Event	Event Type (disaster declaration if applicable)	Sussex County Designated?	Summary of Event	Summary of Local Damages and Losses
January 22, 2016 - January 24, 2016	DR-4264: Severe Winter Storm and Snowstorm	Yes	A major nor'easter, produced record snowfall and blizzard conditions in parts of New Jersey on January 23 <sup>rd</sup> and 24th.	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.	Currently \$30K request for cost reimbursement submitted.

Source: FEMA 2020, NOAA NCEI 2020

## 9.12.6 Jurisdiction-Specific Vulnerabilities and Hazard Ranking

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

#### HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps were generated for the Township of Hardyston that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps have been generated only for those hazards that can be clearly identified using mapping techniques and technologies and for which the Township of Hardyston has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

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

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

Source: FEMA 2019





# **CRITICAL FACILITIES AND LIFELINES**

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

#### Table 9.12-12. Critical Facilities and Lifelines Flood Exposure

		Expo	sure
Name	Туре	1% Event	0.2% Event
22-192 Canistear Reservoir #1 Dam	Dam	Х	Х

Source: Sussex County Planning Partnership 2020 Note:

\*Identified lifeline

#### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- The Township's DPW fuel station is a critical facility and provides essential services to the community. The station currently does not have a source of backup power. In the event of a power outage, the station can fuel municipal vehicles.
- Hardyston Township has over 4,000 acres of State and Newark Watershed woods that in many cases backup to housing developments. This exposes many homes to wildfire and brush fire events.
- Colson Terrace experiences storm drainage issues during periods of rain. This reduces access to this road and the facilities located there, including the EMS and fire departments.
- It is unknown if the roof of the elementary school meets the current snow load standards.
- It is unknown if the windows of the elementary school are impact resistant.
- It is unknown if the windows on the southwest side of the municipal building are impact resistant.
- Due to the current COVID-19 pandemic, the Township has identified several areas in their buildings that could be enhanced to reduce expose to bacteria and viruses.
- The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meeting New Jersey's minimum requirement.

## HAZARD RANKING

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

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





provided input to its individual results to reflect the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Township of Hardyston agreed with the calculated hazard rankings.

Dam Failure Medium	Disease Outbre Medium	eak	Drought Medium		Earthqua Mediur		Flood Medium	Geologic Low
Hazardous Materials Medium	Hurricane and Tropical Storm High	S	ivasive pecies /iedium	N	lor'Easter High	 rere ther gh	Severe Winter Weather High	Wildfire Medium

Table 9.12-13	. Township	of Hardyston	Hazard Ranking
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# 9.12.7 Mitigation Strategy and Prioritization

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

# PAST MITIGATION INITIATIVE STATUS

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

			Status (In Progress, No	Include in the 2021 HMP Update?			
2016 Actio	n Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
Hardyston- 1 (new)	Ensure continuity of operations at critical facilities and municipal buildings: Hardyston Township Critical Facilities Generators	OEM	Fire Houses and Police/Dispatch complete. DPW and fuel station no funding	X (for DPW)	2021- Hardyston- 001		
Hardyston- 2 (old #1)	Implement Fire Wise Program throughout Township. Create an education program and set up town hall meetings.	OEM Coordinator	No Progress	Х	2021- Hardyston- 002		
Hardyston- 3 (old #3)	Stormwater management study to correct storm drainage system located on Colson Terrace.	DPW and OEM	No Progress	Х	2021- Hardyston- 003		
Hardyston- 4 (revised old #4)	Conduct engineering study to determine the correct actions for retrofitting the roof of the elementary school to meet current snow load standards. Once completed, identify mitigation actions to correct the problem.	School Board Administrator	No Progress	Х	2021- Hardyston- 004		

# Table 9.12-14. Status of Previous HMP Mitigation Actions





			Status (In Progress, No		the 2021 HMP pdate?
2016 Actio	n Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Hardyston- 5 (revised #5)	Conduct engineering study to determine the correct actions for retrofitting the gymnasium windows of the elementary school to make them impact resistant. Once completed, identify mitigation actions to correct the problem.	School Board Administrator	No Progress	X	2021- Hardyston- 005
Hardyston- 6 (revised #6)	Conduct engineering study to determine the correct actions for retrofitting the windows on the southwest side of the municipal building to make them impact resistant. Once completed, identify mitigation actions to correct the problem.	Township Manager	No Progress	X	2021- Hardyston- 004
Hardyston- 7 (revised #7)	Educate citizens on hazard mitigation and preparedness through Town Hall meetings and outreach programs.	OEM Coordinator	Ongoing Capability - meetings with lake and development associations on going	-	-
Hardyston- 8 (new)	Establish a line item for mitigation project funding in both the municipal budget and Capital Improvement Plan.	Township	Ongoing Capability	-	-
Hardyston- 9 (new)	Adopt and enforce codes and standards beyond FEMA and state NFIP minimum requirements.	Township	In Progress	х	2021- Hardyston- 009
Hardyston- 10 (new)	Where applicable, Township job descriptions will incorporate hazard mitigation.	Township	Ongoing Capability	-	-
Hardyston- 11 (new)	Incorporate hazard mitigation in the daily practice of the Township; all projects identified in Township's annex will be a goal of the municipality.	Township	Ongoing Capability - Hardyston Township develops 5-year plans which address risk management.	-	-
Hardyston- 12 (new)	Establish a community resilience committee and advisor for the Township which will increase the Township's capacity to prepare for, mitigate, respond to and recover from hazard events in the community.	Township Administration, OEM Coordinator	Ongoing Capability – Committee is comprised of representatives from OEM, Township Council, Police, Fire, DPW, Health, and Engineering Departments	-	-
Hardyston- 13 (new)	Provide informational handouts or meetings to share best practices of hazard mitigation and increase the knowledge of mitigation throughout the Township.	Township Administration, OEM Coordinator	Complete. Available at Town Hall, adding to web pages	-	-
Hardyston- 14 (new)	Develop a continuity of operations (COOP) plan	Township	In Progress. Plan is contained within EOP. However, plan requires	х	





			Status (In Progress, No	Include in the 2021 HM Update?			
2016 Action Number Action Description		Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
	which will identify mitigation opportunities.		update to reflect lessons learned and strategies developed during coronavirus pandemic.				
Hardyston- 15 (old #2)	Correct the stormwater drainage on Colson Terrace.	Township OEM and DPW	No Progress	Х	2021- Hardyston- 003		

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

None identified

# **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Township of Hardyston participated in a risk assessment workshop in October 2020 in which detailed information was provided about assets exposed and vulnerable to the identified hazards of concern. The Township of Hardyston participated in a mitigation action workshop in November 2020 and was provided a Mitigation Toolbox that included a mitigation catalog developed specifically for Sussex County and its hazards of concerns; challenges and opportunities identified during the capability and risk assessments; mitigation funding sources, and the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 *Selecting Appropriate Mitigation Measures for Floodprone Structures* (March 2007) and FEMA *Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards* (January 2013). Section 6 (Mitigation Strategy) and Appendix F (Mitigation Strategy Supplement) provide a more complete description of the Mitigation Toolbox and its resources.

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

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

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



# Table 9.12-15. Proposed Hazard Mitigation Initiatives

Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2021- Hardyston- 001	DPW Fuel Station Generator	<b>Problem</b> : The Township's DPW fuel station is a critical facility and provides essential services to the community. The station currently does not have a source of backup power. In the event of a power outage, the station can fuel municipal vehicles.	Existing	All	2, 6	Engineering, DPW, Township Administration	FEMA HMGP, Township Budget	Continuity of operations; provide fuel to municipal vehicles	\$100,000	Within 2 years	High	SIP	ES
		<b>Solution:</b> Determine the proper size permanent generator for the fuel station; once determined, purchase and install generator.						venicies					
		<b>Problem</b> : Hardyston Township has over 4,000 acres of State and Newark Watershed woods that in many cases backup to housing developments. This exposes many homes to wildfire and brush fire events.						Increase wildfire					
2021- Hardyston- 002	Firewise Program	<b>Solution:</b> The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up town hall meetings.	Existing	Wildfire	1, 2, 3	Township Administration, Fire Department	Township budget	awareness, provide grant opportunities for Township	<\$20,000	Within 4 years	Medium	LPR, EAP	PI, ES
2021- Hardyston-	Colson Terrace	<b>Problem</b> : Colson Terrace experiences storm drainage issues during periods of rain. This reduces access to this road and the facilities located there, including the EMS and fire departments.	Existing	Flood, Hurricane, Nor'Easter, Severe Waathor	1, 2,	Engineering, DPW, Township	Township Budget, FEMA BRIC	Identify drainage issues and provide solutions to	\$50,000+	Within 2 years	High	LPR. SIP	PR, SP
003	Study     Solution: Conduct an engineering study to determine the drainage issues on Colson Terrace. Once study is complete and solutions are identified, obtain funding to     Existing	ting Severe Weather, Severe Winter Weather		Administration	and HMGP	reduce or alleviate the problem		2 years		SIF	Sr		





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution implement best solution to alleviate	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
		the drainage issues.											
		<b>Problem:</b> It is unknown if the roof of the elementary school meets the current snow load standards.						Identifies					
2021- Hardyston- 004	Engineering Study (roof) on Elementary School	<b>Solution</b> : Conduct engineering study to determine the correct actions for retrofitting the roof of the elementary school to meet current snow load standards. Once completed, identify mitigation actions to correct the problem	Existing	Severe Winter Weather, Nor'Easter	1, 2, 4	School Board Administration	School and Township Budgets	any required actions to protect the facility	\$25,000	Within 3 years	Medium	LPR, SIP	PR
		<b>Problem</b> : It is unknown if the windows of the elementary school are impact resistant.											
2021- Hardyston- 005	Engineering Study (windows) on Elementary School	<b>Solution:</b> Conduct engineering study to determine the correct actions for retrofitting the gymnasium windows of the elementary school to make them impact resistant. Once completed, identify mitigation actions to correct the problem.	Existing	Severe Weather, Hurricane, Nor'Easter	1, 2, 4	School Board Administration	School and Township Budgets	Identifies any required actions to protect the facility	\$25,000	Within 3 years	Medium	LPR, SIP	PR
		<b>Problem:</b> It is unknown if the windows on the southwest side of the municipal building are impact resistant.						Identifies					
2021- Hardyston- 006	Engineering Study on Municipal Building	<b>Solution</b> : Conduct engineering study to determine the correct actions for retrofitting the windows on the southwest side of the municipal building to make them impact resistant. Once completed, identify mitigation actions to correct the problem.	Existing	Severe Weather, Hurricane, Nor'Easter	1, 2, 4	Township Administration	Township budget	actions to protect the facility	\$25,000	Within 3 years	Medium	LPR, SIP	PR
2021- Hardyston- 007	Enhance Municipal Buildings	<b>Problem</b> : Due to the current COVID-19 pandemic, the Township has identified several areas in their buildings that could be enhanced to reduce expose to bacteria and viruses.	Existing	Disease Outbreak	1, 2, 5	Township Administration	Township budget	Increase protection from diseases; decrease risk of spread	\$50,000+	Within 5 years	Medium	SIP	ES, PR





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution Solution: The Township will	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
		upgrade the bathroom facilities in the town hall, EMS, police station, and fire department to touchless toilets and sinks. This will reduce exposure to germs and provide safer environments for municipal staff.											
2021- Hardyston- 008	Develop Debris Management Plan	<ul> <li>Problem: The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.</li> <li>Solution: The Township will develop a debris management plan that will assist the municipality when they need to facilitate response and recovery after a debris-causing incident. The plan will provide direction to facilitate and coordinate the management of debris following a disaster.</li> </ul>	Existing	Flood, Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather, Wildfire	3, 5, 6	OEM, Public Works	Township budget	Increased disaster capability and preparedness	Staff time	l year	High	LPR	ES
2021- Hardyston- 009	Update Flood Damage Prevention Ordinance	<ul> <li>Problem: The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meeting New Jersey's minimum requirement.</li> <li>Solution: The Township will update its flood damage prevention ordinance to meet the New Jersey requirement of one foot of freeboard.</li> </ul>	New and Existing	Flood	1, 2	Township Administration, Construction Official	Township budget	Meet state standards, reduce future flood risk	Staff time	6 months	High	LPR	PR
2021- Hardyston- 010	Update EOP to Include Covid Strategies	<b>Problem:</b> The Emergency Operations Plan contains the Continuity of Operations Plan for the Township. During the coronavirus pandemic, new obstacles for continuity of operations were identified and	N/A	All Hazards	1, 2, 6	OEM	Township budget	Increased emergency planning and disaster capabilities	Staff time	6 months	High	LPR	ES



								ed	ed Cost	a		on y	Category
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	Estimateo Benefits	Estimated	Timelin	Priority	Mitigation Category	CRS Cat
		addressed but are not reflected in the Plan.											
		<b>Solution:</b> The Township will update the Emergency Operations Plan to include discussion of lessons learned and strategies developed during the coronavirus pandemic to maintain continuity of government services during and	-										
		following disaster events.											

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

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.

Potential FEMA HMA Funding Sources:

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.

Flood Mitigation Assistance Grant Program

Hazard Mitigation Grant Program

Pre-Disaster Mitigation Grant Program

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

FMA

HMGP

PDM

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.

#### <u>Timeline:</u>

*The time required for completion of the project upon implementation* 

<u>Cost:</u>

The estimated cost for implementation.

Benefits:

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



Initiative Number	Mitigation Initiative Name	Life Safety	Property Protection	Cost Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2021-Hardyston-001	DPW Fuel Station Generator	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
2021-Hardyston-002	Firewise Program	1	1	1	1	0	0	1	1	0	1	0	1	0	0	8	Medium
2021-Hardyston-003	Colson Terrace Study	1	1	1	1	1	1	0	1	0	1	1	1	1	0	11	High
2021-Hardyston-004	Engineering Study (roof) on Elementary School	1	1	1	1	0	0	0	0	0	0	0	1	0	0	5	Medium
2021-Hardyston-005	Engineering Study (windows) on Elementary School	1	1	1	1	0	0	0	0	0	0	0	1	0	0	5	Medium
2021-Hardyston-006	Engineering Study on Municipal Building	1	1	1	1	1	1	0	0	0	1	0	1	0	0	8	Medium
2021-Hardyston-007	Enhance Municipal Buildings	1	1	1	1	1	1	0	0	0	1	0	1	0	0	8	Medium
2021-Hardyston-008	Develop Debris Management Plan	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
2021-Hardyston-009	Update Flood Damage Prevention Ordinance	1	1	1	1	1	1	1	0	0	1	0	1	1	0	10	High
2021-Hardyston-010	Update EOP to Include Covid Strategies	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High

# Table 9.12-16. Summary of Evaluation and Action Priorities

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.





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

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

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



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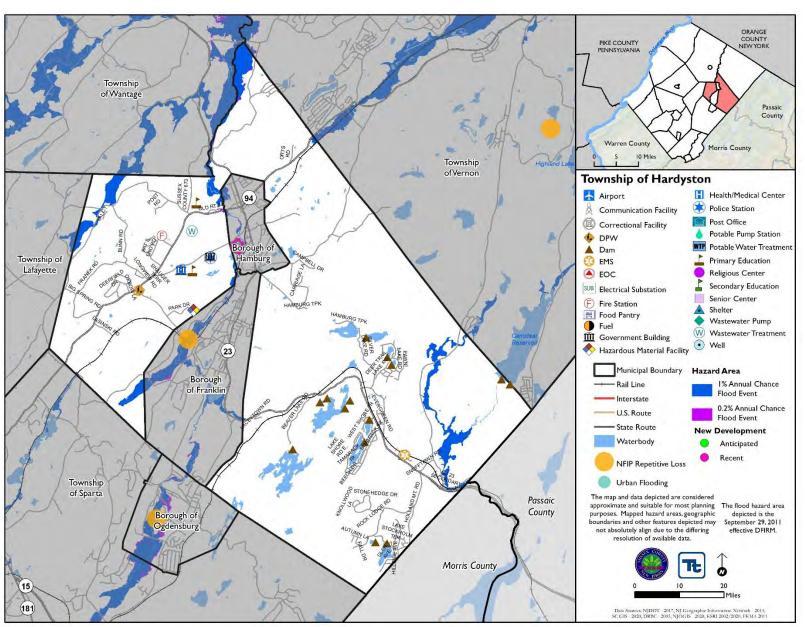


Figure 9.12-1. Township of Hardyston Hazard Area Extent and Location Map 1



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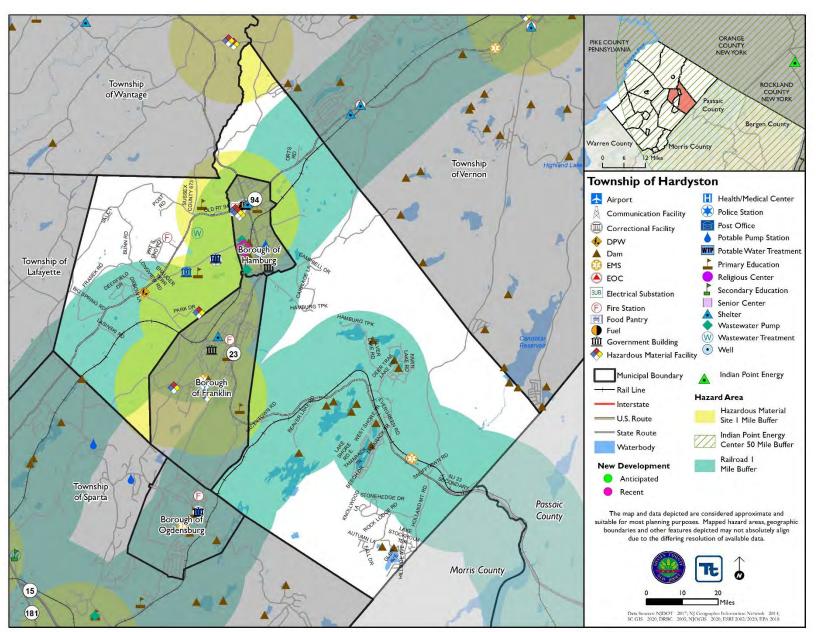


Figure 9.12-2. Township of Hardyston Hazard Area Extent and Location Map 2



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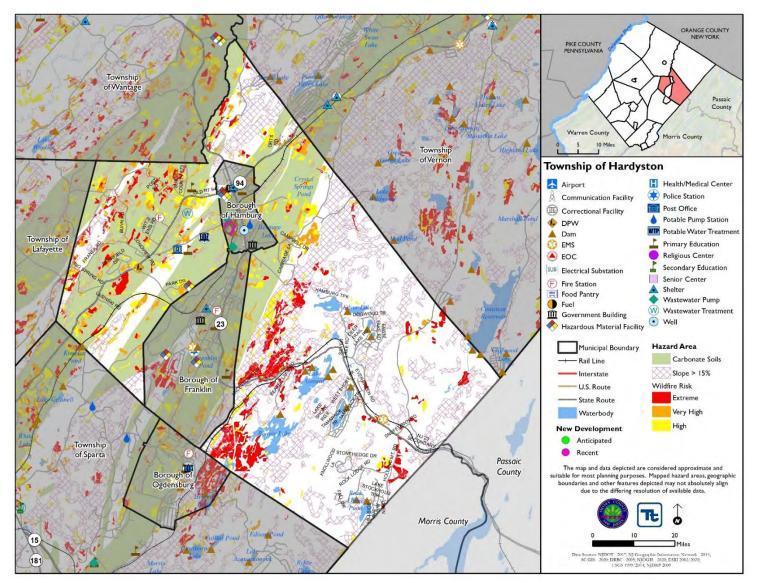


Figure 9.12-3 Township of Hardyston Hazard Area Extent and Location Map 3



	А	ction W	orkshee	t		
Project Name:	DPW Fuel Station Ge	enerator				
Project Number:	2021-Hardyston-002	2021-Hardyston-001				
	Risk / Vulnerability					
Hazard(s) of Concern:	All Hazards					
Description of the Problem:						
	Action or Project	ct Intend	ded for Ir	nplementation		
Description of the Solution:						
Is this project related to a ( Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌		
Level of Protection:	N/A			ted Benefits avoided):	Continuity of operations; provide fuel to municipal vehicles	
Useful Life:	5 years		Goals M	let:	2, 6	
Estimated Cost:	\$100,000		Mitigat	ion Action Type:	Structure and Infrastructure Project	
	Plan	for Imp	lementa		,	
Prioritization:	High			l Timeframe for lentation:	Within 2 years	
Estimated Time Required for Project Implementation:	Within 2 years		•	al Funding	FEMA HMGP, Township Budget	
Responsible Organization:	Engineering, DPW, Township Administr	ation	Mechar	lanning nisms to be Used ementation if any:	N/A	
	Three Alternatives	s Consid				
	Action		Es	stimated Cost	Evaluation	
	No Action	-+ 1		\$0	Current problem continues	
Alternatives:	Install solar panels station	at fuel		\$25,000+	Weather dependent; maintenance costs	
	Install wind turb	ino		¢25 000 .	Weather dependent;	
				\$25,000+	maintenance costs	
	Progress Re	port (fo	r plan ma	aintenance)		
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





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





	Α	ction W	orkshee	t	
Project Name:	Colson Terrace Study	/			
Project Number:	2021-Hardyston-003	3			
Risk / Vulnerability					
Hazard(s) of Concern:	Flood, Hurricane, No	r'Easter,	, Severe V	Weather, Severe Wint	ter Weather
Description of the Problem:	Colson Terrace experiences storm drainage issues during periods of rain. This reduces access to this road and the facilities located there, including the EMS and fire departments.				
	Action or Projec	t Inten	ded for I	mplementation	
<b>Description of the</b> <b>Solution:</b> Conduct an engineering study to determine the drainage issues on Colson Terrace. Once study is complete and solutions are identified, obtain funding to implement best solution to alleviate the drainage issues.					
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂	
Level of Protection:	N/A		Estimated Benefits (losses avoided):		Identify drainage issues and provide solutions to reduce or alleviate the problem
Useful Life:	N/A		Goals N	let:	1, 2, 5
Estimated Cost:	\$50,000+		_	tion Action Type:	Local Plans and Regulations, Structure and Infrastructure Project
	Plan	for Imp	lementa		
Prioritization:	High			d Timeframe for nentation:	Within 2 years
Estimated Time Required for Project Implementation:	Within 2 years		Potent Source	ial Funding s:	Township Budget, FEMA BRIC and HMGP
Responsible Organization:	Engineering, DPW, Township Administra	ation	Mecha	Planning nisms to be Used lementation if any:	N/A
	Three Alternatives	Consid			
	Action		E	stimated Cost	Evaluation
Alternatives:	No Action Elevate buildings lo along Colson Terr			\$0 \$1 million+	Current problem continues Costly; not feasible; not all buildings sustain flood damage
	Elevate roadwa	•		\$100,000+	Costly; can lead to access issues to buildings
	Progress Rep	port (fo	r plan m	aintenance)	
Date of Status Report:					
Report of Progress:					
Update Evaluation of the Problem and/or Solution:					





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



# 9.13 BOROUGH OF HOPATCONG

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

# 9.13.1 Hazard Mitigation Planning Team

The following individuals are the Borough of Hopatcong's identified HMP update primary and alternate points of contact and NFIP Floodplain Administrator.

Prim	ary Point of Contact		Alternate Point of Contact	
Name / Title: Wade Crowley, OEM Coordinator Address: 111 River Styx Road, Hopatcong, NJ 07843 Phone Number: (973) 390-0988 Email: wcrowley@hopatcong.org			Name / Title: Ron Tappan, Administrator Address: 111 River Styx Road, Hopatcong, NJ 07843 Phone Number: (973) 770-1200 Email: rtappan@hopatcong.org	
NFIP Floodplain Administrator Name / Title: William O'Connor, Construction Official Address: 111 River Styx Road, Hopatcong, NJ 07843 Phone Number: (973)770-1200 Email: woconner@hopatcong.org				
Name	Title	Method of Participation		
Wade Crowley	OEM Coordinator	Primary point of contact, provided data and information, contributed to mitigation strategy; attended the risk assessment meeting and mitigation strategy workshop; reviewed the annex*		
Ron Tappan	Administrator	Alternate po	pint of contact, reviewed the annex*	
William O'Connor	Construction Official	NFIP flood	plain administrator, reviewed the annex*	
Samantha Anello	Engineer		ta and information; contributed to mitigation strategy; attended essment meeting and mitigation strategy workshop	
John K. Ruschke	Engineer	Reviewed th	ne annex*	
Loraine Rossetti	CFO	Reviewed th	ne annex*	
Robert Breenan	Chief of Police	Reviewed th	ne annex*	
Shaun Poland	Fire Chief	Reviewed th	ne annex*	
Pat Mason	Public Works Superintendent	Reviewed th		

# Table 9.13-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.

# 9.13.2 Jurisdiction Profile

Hopatcong Borough is located in southwestern Sussex County. It is bordered to the north by Sparta Township, to the east and south by Morris County, and to the west by Byram Township and Stanhope Borough. The Borough has a total area of 12.4 square miles. The following unincorporated communities are located within the Borough: Northwood, Byram Cover, Sperry Springs, Bonaparte Landing, Hopatcong Hills, and Hopatcong Heights. Streams in the Borough include: the Musconetcong River which makes up the eastern border of the Borough, and Lubbers Run. A portion of Lake Hopatcong is found in eastern Hopatcong Borough.





According to the U.S. Census, the 2010 population for the Borough of Hopatcong was 15,147. The estimated 2018 population was 14,362, a 5.2 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 13.7 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.

# 9.13.3 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 9.13-2 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.

	_				-		-			
Type of Development	2	015	2	016	2	2017	2	018	2	019
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	7	0	10	0	9	0	6	0	8	0
Multi-Family	0	0	0	0	0	0	2	0	2	0
Other (commercial, mixed-use, etc.)	0	0	0	0	0	0	0	0	0	0
Property or Development Name		`ype of lopment	# of Units / Structures		<b>Location</b> (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
		Recent Ma	jor Deve	lopment ar	nd Infras	tructure from	m 2015 t	o Present		
Mariners Point	Reside	ntial	10		16 Law Mariner	rie Ave/ rs Point	Non		Complet	ie
Kn	own or A	nticipated	Major D	evelopmen	t and Inf	rastructure	in the Ne	ext Five (5)	Years	
				None a	anticipate	d				
* Only location specific	h == = = d = = =									

# Table 9.13-2. Recent and Expected Future Development

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

# 9.13.4 Capability Assessment

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

		Authority that		been integra	ts of the HMP ated into your ances/plans?	
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Codes, Ordinances, & Requirements						
Building Code	Yes	State & Local	Yes	Yes	-	
Comment: • State mandated on local level under NJA Adopted 9/3/2019 • The Borough is responsible for this code		0	ruction Code Ac			
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
<ul> <li>Comment:         <ul> <li>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.</li> <li>The Zoning Department is responsible for this code in compliance with Chapter 242- Zoning.</li> </ul> </li> </ul>						
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
<ul> <li>Board</li> <li>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 suance 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.</li> <li>The Land Use Board is responsible for this ordinance in compliance with Chapter 209- Subdivision of Land.</li> </ul>						
Stormwater Management	Yes	State & Local	Yes	Yes	-	
Comment: • See Title 7 of the NJ Administrative Cod • The Engineering Department is response Requirements.		nce in compliance with	Chapter 242 – 2	Zoning, Stormwa	ter Management	

# Table 9.13-3. Planning, Legal and Regulatory Capability





		Authority that	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)		If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Post-Disaster Recovery	No	-	No	-	-	
Comment:						
Real Estate Disclosure	No	State, Division of Consumer Affairs	Yes	No	-	
<b>Comment:</b> N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Con improvements, fees for services and amenities, the and police, as well as any hazards, risks or nuisance	nmission. The POS type of title and ow	S provides information s mership interest being o	such as estimated offered, its proxi	d completion date	es for	
Growth Management	Yes	State	Yes – if municipality has a Planning Board	No	-	
Comment: • State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make • The Administration is responsible for th	lineation of Growt es the Plan Endorse	h Areas and Environs; ement process a growth	Use of the endor management str ds.	sed plans in the i		
Site Plan Review	Yes	State, County & Local	Yes – if municipality has a Planning Board	Yes	-	
review of all subdivisions of land within affecting county road or drainage facili planning boards shall have a complete f municipal clerk shall file with the count on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publ given to the county planning board at le a copy of the official notice of the public	ities as set forth an file of the planning y planning board a l notify the county djoining county ro lic lands shown on ast 10 days prior to c hearing together	d limited hereinafter in and zoning ordinances copy of the planning a planning board of the in bads or other county lan the county master plan o the public hearing the with a copy of the prope	this section. 40 of all municipal nd zoning ordina ntroduction of a nds, or lands lyin or official coun ereon by persona osed ordinance.	:27-6.10 In order ities in the county ances of the muni ny revision or am ng within 200 feet ty map. Such nou al delivery or by c	that county y, each cipality in effec endment of t of a municipa tice shall be	
The Land Use Board is responsible for t						
Environmental Protection Comment: Chapter 143, Lawn Fertilizers	Yes	Local	No	Yes	-	
<ul> <li>Chapter 147, Littering</li> <li>Chapter 154 Natural Area Preserve</li> </ul>						
Chapter 147, Littering	Yes	Federal, State & Local	Yes	Yes	2021- Hopatcong- 009	



		50		- Dorouyii o	<u>j noputeon</u>
		Authority that		been integra	ts of the HMP ated into your ances/plans?
	Do you have this?	enforces (Federal, State, Regional, County,	Is this State	If yes- how? Describe in	If no - add Mitigation Action #, if
• E. Minimize damage to publi	(Yes/No)	Local)	Mandated?	comments.	applicable.
streets, and bridges located is 5. F. Help maintain a stable tax as to minimize future flood b 6. Ensure that potential buy 6. H. Ensure that those who occ • The Flood Damage Prevention Ordinan	in areas of special x base by providing light areas; ers are notified tha cupy the areas of s	flood hazard; 3 for the second use and 1 property is in an area vecial flood hazard ass	l development of of special flood ume responsibili	fareas of special	flood hazard so
Wellhead Protection	No	-	No	-	-
Comment:				•	
Emergency Management	Yes	Local	No	Yes	-
Comment: • Chapter 17, Fire Department • Chapter 39, Police Department		L		I	
Climate Change	No	-	No	-	-
Comment:					
Disaster Recovery Ordinance	No	-	No	-	-
Comment:				I	
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:					
Municipal Separate Storm Sewer System (MS4)	Yes	Local	No	Yes	-
Comment: The Engineering Department is response	tible for this ordine	nnce in compliance with	Chapter 203 –	Storm Sewer Syst	tem.
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	No	Yes	-
<b>Comment:</b> The Borough is responsible for these or and Chapter 154 – Natural Area Preserve.	dinances in compli	iance with Chapter 100	– Deer Manage	ment, Chapter I	32 – Highlands,
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
<ul> <li>Comment:         <ul> <li>2018 Revised NJ Statute 40:27-2; the control the county. The master plan of a county, show the county planning board's recomanning other things, the general location developments, parkways, playgrounds, j the general location and extent of forest water supply, sanitary and drainage fail important to the development of the county in any in advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be</li> <li>The Land Use Board is responsible for the county in a plane.</li> </ul> </li> </ul>	with the accompa umendations for the orests, reservation s, agricultural are cilities, or the prote nty. The county pla natters whatsoever ers with respect to L and Use Law (M and requires that consistent with the	nying maps, plats, char e development of the te extent of streets or road ns, parks, airports, and as, and open-developm ection of urban develop unning board shall encor which may concern the the formulation of deven (LUL) L. 1975, s. 2, eff each municipality prep. Master Plan or will no	ts, and descripti rritory covered s, viaducts, brid other public wa ent areas for pu ment, and such ourage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fi	ve and explanato by the plan, and i ges, waterway a ys, grounds, plac rposes of conserv other features as eration of the loc e county master p ns and budgets f 55D-28 provides in and update it e com a presumptio	ry matter, shall nay include, nd waterfront es and spaces; vation, food and may be val lan and to for capital the required wery 6 years.
The Land Use Board is responsible for it Capital Improvement Plan	Yes	Local	No	Yes	_
<i>Comment:</i> The Administration is responsible for th		Lioui	110	100	
Disaster Debris Management Plan	No	-	No	-	2021- Hopatcong- 010
Comment:		1			
Floodplain or Watershed Plan	No	-	No	-	-
<b>*</b> · · · · · · · · · · · · · · · · · · ·		I		I	



		Authority that		been integra	ts of the HMP ited into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment:					
Stormwater Management Plan Comment:	No	State & Local	Yes	Yes	-
<ul> <li>The Stormwater Management rules (N.J. the required components of regional and design and performance standards for n include groundwater recharge, runoff qi consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge, of major development to be located with without prior authorization from the De</li> </ul>	d municipal storm ew (proposed) dev uantity controls, a tormwater manag of stormwater pip stormwater runoj in or to discharge	water management plan velopment. The design a nd runoff quality contro ement techniques includ ves, preserving natural d ff quantity control, storr runoff from the major d	ns and establish t nd performance sls. The rules em ding minimizing drainage feature, nwater runoff qu development into	the stormwater m standards for ne phasize, as a prin disturbance, min s, etc. The rules a uality control, and a 300-foot ripar	anagement w development nary imizing ilso set forth l the prohibition
Stormwater Pollution Prevention Plan	No	-	Yes	-	-
7:14A) were published in the February . associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, wil management plan and implementing ord basin cleaning); implementing solids an education component.	off. The NJPDES i tter Act. These NJ. sewer systems, kn such as universiti am establishes the ese sources. The S dlife feeding, prop linance(s); requiri	rules establish a regulat PDES rules govern the own as MS4s. Under th ies and hospitals, and S Statewide Basic Require tatewide Basic Require oer waste disposal, etc.) ng certain maintenance	tory program for issuance of perm is program, perm tate, interstate a rements that mu ments include ma ; the developmen activities (such	existing stormwo hits to entities that nits must be secu- nd federal agencu- st be implemented easures such as: nt of a municipal as street sweepin	ater discharges t own or red by ies that operate d to reduce the adoption of stormwater ig and catch
Urban Water Management Plan	No	-	No	-	-
Comment:					
Habitat Conservation Plan	No	-	No	-	-
Comment:					
	No		), T		
Economic Development Plan	INO	-	No	-	-
Economic Development Plan Comment:	INO	-	No	-	-
-	No	-	No Yes – if located in a coastal zone	-	-
Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and a structures, and site preparation. This la	No .J.S.A. 13:19) or C enlargement of but w is implemented	- CAFRA regulates almos ildings or structures, an	Yes – if located in a coastal zone t all developmen d excavation, gr one managemen	t along the coast ading, shore pro	- for activities tection
Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and a structures, and site preparation. This la Community Wildfire Protection Plan	No .J.S.A. 13:19) or C enlargement of but	- CAFRA regulates almos ildings or structures, an	Yes – if located in a coastal zone t all developmen d excavation, gr	t along the coast ading, shore pro	- for activities tection
Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and e structures, and site preparation. This la Community Wildfire Protection Plan Comment:	No .J.S.A. 13:19) or C enlargement of bu w is implemented No	- CAFRA regulates almost ildings or structures, an through NJ's Coastal Z -	Yes – if located in a coastal zone t all developmen d excavation, gr one managemen No	- t along the coast ading, shore pro t Rules N.J.A.C.	- for activities tection
Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and a structures, and site preparation. This la Community Wildfire Protection Plan Comment: Community Forest Management Plan	No .J.S.A. 13:19) or C enlargement of but w is implemented	- CAFRA regulates almos ildings or structures, an	Yes – if located in a coastal zone t all developmen d excavation, gr one managemen	t along the coast ading, shore pro	- for activities tection
Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and e structures, and site preparation. This la Community Wildfire Protection Plan Comment:	No .J.S.A. 13:19) or C enlargement of bu w is implemented No	- CAFRA regulates almost ildings or structures, an through NJ's Coastal Z -	Yes – if located in a coastal zone t all developmen d excavation, gr one managemen No	- t along the coast ading, shore pro t Rules N.J.A.C.	- for activities tection
Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and e structures, and site preparation. This la Community Wildfire Protection Plan Comment: Community Forest Management Plan Comment:	No J.S.A. 13:19) or C enlargement of bu w is implemented No No	- CAFRA regulates almost Idings or structures, an through NJ's Coastal Z - -	Yes – if located in a coastal zone t all developmen d excavation, gr one managemen No No	- t along the coast ading, shore pro- t Rules N.J.A.C. - -	- for activities tection
Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and o structures, and site preparation. This la Community Wildfire Protection Plan Comment: Community Forest Management Plan Comment: Transportation Plan Comment:	No J.S.A. 13:19) or C enlargement of bu w is implemented No No	- CAFRA regulates almost Idings or structures, an through NJ's Coastal Z - -	Yes – if located in a coastal zone t all developmen d excavation, gr one managemen No No	- t along the coast ading, shore pro- t Rules N.J.A.C. - -	- for activities tection
Comment: Shoreline Management Plan Comment: NJ Coastal Area Facility Review Act (N including construction, relocation, and a structures, and site preparation. This la Community Wildfire Protection Plan Comment: Comment: Transportation Plan Comment: Agriculture Plan	No J.S.A. 13:19) or C enlargement of bu w is implemented No No No	- CAFRA regulates almost Idings or structures, an through NJ's Coastal Z - -	Yes – if located in a coastal zone t all developmen d excavation, gr one managemen No No	- t along the coast ading, shore pro t Rules N.J.A.C. - -	- for activities tection
Comment: Shoreline Management Plan Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and o structures, and site preparation. This la Community Wildfire Protection Plan Comment: Comment: Transportation Plan Comment:	No J.S.A. 13:19) or C enlargement of bu w is implemented No No No	- CAFRA regulates almost Idings or structures, an through NJ's Coastal Z - -	Yes – if located in a coastal zone t all developmen d excavation, gr one managemen No No	- t along the coast ading, shore pro t Rules N.J.A.C. - -	- for activities tection





	Authority that			Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Tourism Plan	No	-	No	-	-	
Comment:						
Business Development Plan	No	-	No	-	-	
Comment:						
Other: Open Space Plan	Yes	Local	No	Yes	-	
Comment: • The Open Space Department is responsive Response/Recovery Planning	ble for this plan in	compliance with Open	Space and Rect	eation Plan Upde	ate, 2011.	
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-	
<ul> <li>Each county and municipality in the Stat necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State</li> <li>The Office of Emergency Management is</li> </ul>	Emergency Operation een adopted by the e Emergency Oper	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2	ted no later thar ncy Managemer 222, s.19.	n one year after th nt and shall be eve	e State	
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-	
Comment:						
Post-Disaster Recovery Plan	Yes	Local	No	Yes	-	
Comment: The Office of Emergency Management is	s responsible for th	his plan in compliance	with the Emerge	ncy Operation Pl	an.	
Continuity of Operations Plan	Yes	Local	No	Yes	-	
Comment:						
Public Health Plan	No	-	No	-	-	
Comment:						
Other Plans	Yes	State & Local	No	Yes	-	
Comment: • The Highlands Council is responsible for Resource Inventory, 2013.	r these plans in co	mpliance with Borough	of Hopatcong l	Highlands Enviro	nmental	

#### Table 9.13-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Construction
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

# ADMINISTRATIVE AND TECHNICAL CAPABILITY

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





Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Land Use Board
Mitigation Planning Committee	Yes	OEM
Environmental Board / Commission	Yes	Environmental Committee
Open Space Board / Committee	Yes	Open Space Board
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Nixle
Maintenance program to reduce risk	Yes	OEM
Mutual aid agreements	Yes	Fire Department/EMS/OEM
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Land Use Board, Engineers
Engineers or professionals trained in building or infrastructure construction practices	Yes	Borough Engineer
Planners or engineers with an understanding of natural hazards	Yes	Borough Engineer
Staff with training in benefit/cost analysis	Yes	Administrator
Staff with training in green infrastructure	No	-
Staff with education/knowledge/training in low impact development	No	-
Surveyor	Yes	Borough Engineer
Stormwater engineer	No	-
Personnel skilled or trained in GIS applications	No	-
Local or state water quality professional	No	Borough Engineer
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	OEM
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	Yes	Millennium
Resilience Officer	No	-
Other: Professionals trained in conducting damage assessments	Yes	Construction

# Table 9.13-5. Administrative and Technical Capabilities

## FISCAL CAPABILITY

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

# Table 9.13-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes
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





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	No
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 Hopatcong.

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, some information is available through Emergency Management and the Fire Department.
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes; Facebook and Twitter
Do you have any citizen boards or commissions that address issues related to hazard mitigation? -If yes, briefly describe.	The Borough of Hopatcong has an Emergency Management Plan in effect, which contains procedures, resources, departments and agencies to keep the Borough in a state of readiness in case an emergency should occur, and to be implemented as need arises. Continuing review, up-dating and implementation of the Plan is the responsibility of the Emergency Management Council. The Emergency Management Council consists of ten members appointed by the Mayor. Of the ten members one is appointed Coordinator and four others as Deputies. The membership cuts across Borough Departments, Hopatcong School District, churches, and local organizations.
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, briefly describe.	Health Clinic, Fire Prevention Bureau

# Table 9.13-7. Education and Outreach Capabilities

## **COMMUNITY CLASSIFICATIONS**

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

# Table 9.13-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	6	Approx. 2013
Public Protection (Fire ISO Protection Class)	No	-	-
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	Yes	Bronze	December 16, 2020





N/A = Not Applicable. NP = Not Participating. - = Unavailable.

## 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.

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

## Table 9.13-9. Adaptive Capacity

Notes:

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

## NATIONAL FLOOD INSURANCE PROGRAM

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

## Table 9.13-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Construction Department
Who is your floodplain administrator? (name, department/position)	William O'Connor, Construction Official
Are any certified floodplain managers on staff in your jurisdiction?	
What is the date that your flood damage prevention ordinance was last amended?	July 6, 2011
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?	February 3, 1994





Criterion	Response
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 welcome any continuing education or certification trainings on floodplain management if 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, and the community hasn't considered joining.
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	11 policies \$2,807,000 insurance in force \$5,849 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	12 claims \$54,193 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

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

## Additional Areas of Existing Integration

- Sustainable Jersey: The Borough of Hopatcong recently was awarded Bronze certification in the Sustainable Jersey Program. The Borough earned credit in the following areas related to hazard mitigation:
  - *Community Education and Outreach:* In September 2019, the Borough had a unique town wide cleanup in which cleaned up areas that were prone to litter with stagnant water and could be infested with mosquitoes. Paige Lockburner of Sussex County Mosquito Control gave a presentation on litter and how it aids in the breeding of mosquitos as well as the life span of mosquitos themselves.
  - *Fleet Inventory:* Hopatcong's fleet is currently comprised of sedans, vans, light and heavy duty trucks, and other equipment for more specialized fire and emergency services. The Borough's trucks are maintained regularly by staff mechanics and local, specialized, automotive and truck repair businesses. The Borough conducts Motor Vehicle Records abstract reports, once a year for all full time, part time or seasonal employees and volunteers who drive a municipal or personal vehicle as part of their job responsibilities. The Borough conducts Driver's Training and Instruction both internally and externally for all DPW employees as seasons and situations are identified. Hopatcong's fleet of vehicles are continually being replaced with more fuel efficient models when available.
  - HAB Innovative Project: In mid-July 2020 Hopatcong Borough installed a pilot project to remedy the harmful algal blooms (HAB's) that closed Lake Hopatcong last summer and caused extreme recreational and economic distress to the area. Water and air quality around the lake was affected and found to be toxic for pets and swimmers. The 60-acre Crescent Cove section of Hopatcong is one of the most impaired HAB areas on the lake and has been battling algal blooms for years prior to last year's closing. For this reason, it was the perfect site for the pilot project. Hopatcong's mayor, Michael Francis, did considerable research and settled on a bottom-diffused aeration system of controlling algal blooms





for which the borough received a \$145,680 grant from the DEP to purchase/install the system to demonstrate its effectiveness in the prevention, mitigation, and control of HAB's . The project has the potential of providing the state with validated results on whether this technology offers promise for the rest of Lake Hopatcong and other bodies of water in NJ. The project uses EverBlue-Lakes micro-porous ceramic aeration diffuser technology consisting of one land-based compressor system and 38 in-lake diffusers connected by a self-sinking airline. 10 diffusers form a Bubble Curtain at the mouth of the cove to reduce surface algal scums and floating weeds by keeping them from entering the treatment area. 28 additional diffusers are situated throughout Crescent Cove to circulate and aerate the remaining target area. Testing will be on-going and results will be accumulated and reported at the end of one year as required by the grant. The objective is to maintain Algal cell counts below the threshold of 20,000 cells/millilitre. If this pilot project is successful similar aeration systems could be installed elsewhere on LH and around NJ, and Crescent Cove will be free of HAB's.

- o Environmental Commission: The Hopatcong Environmental Commission is one of the more active organizations in the Borough of Hopatcong. The group has had a long history of service to the town and in the last several years has become very active in organizing and promoting green events and coordinating programs that benefit the community such as Town Cleanup and Free Trees to residents through the NJ Tree Recovery Program. In addition, they have worked with the LHF on lake clean up and screening for invasive aquatic weeds. Members assist the Musconetcong Water Assoc in water testing of the Musconetcong River downstream from its headwaters of Lake Hopatcong and they have marked storm drains throughout the borough to curb dumping.
- *Tree Protection Ordinance:* The ordinance prohibits the uncontrolled destruction, removal and cutting of trees and takes into consideration the protection of old growth forests, trees of historical and botanical rarity.

## **OPPORTUNITIES FOR FUTURE INTEGRATION**

 Flood Damage Prevention Ordinance: The Borough will update the Flood Damage Prevention Ordinance to include freeboard (2021-Hopatcong-003).

# 9.13.5 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 Hopatcong'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 9.13-11 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.

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 <sup>rd</sup> and 24th.	Although the County was impacted, the Borough did not report damages.

# Table 9.13-11. 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 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 closures and masking and social distancing requirements.
August 4, 2020	Tropical Storm Isaias (Declaration to be determined)	Yes	Tropical Storm Isaias	High winds resulted in falling trees and branches.

Source: FEMA 2020, NOAA NCEI 2020

# 9.13.6 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 Hopatcong 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 Hopatcong 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 Hopatcong has significant exposure.

## **REPETITIVE FLOOD LOSSES**

The following summarizes the repetitive and severe repetitive flood losses in the Borough of Hopatcong.

- Number of repetitive loss (RL) properties: 1
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

#### 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 9.13-12. Critical Facilities and Lifelines Flood Exposure

		Exposure	
Name	Туре	1% Event	0.2% Event
22-247 Dallis Pond Dam	Dam	Х	Х
25-42 Lake Hopatcong	Dam	Х	Х

Source: Sussex County Planning Partnership 2020 Note: \*Identified lifeline





# **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- Backup power sources are necessary to maintain critical services for critical facilities. The Borough has
  entered into a mutual aid agreement with the St. Jude Church Parish to be an emergency shelter. The
  Parish lacks a backup power source.
- A new chipper is needed to help with storm clean up as most storms cause tree and utilities damage in the Borough.
- Nutrients entering the lake through stormwater contribute to harmful algal blooms. Harmful algal blooms present a health concern and are damaging to the environment.
- The Borough requires an upgraded radio system that can be used by all our emergency services to better coordinate emergency response in the town during storms and other emergencies.
- The Ambulance Squad building is over 40 years old and is deteriorating.
- The Borough has one unmitigated repetitive loss property.
- The Borough would like to enhance existing outreach and develop additional hazard outreach.
- The Borough's flood damage prevention ordinance lacks the state mandated freeboard requirement.
- 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 Hopatcong 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 Hopatcong. The Borough of Hopatcong 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 Hopatcong indicated the following reasons why hazard rankings have changed since the 2016 HMP:

- The Borough changed the hazard ranking for drought from medium to low.
- The Borough changed the hazard ranking for flood from medium to low.
- The Borough changed the hazard ranking for hazardous materials from medium to low.
- The Borough changed the hazard ranking for invasive species from medium to high.
- The Borough agreed with the remainder of the calculated hazard rankings.

## Table 9.13-13. Borough of Hopatcong Hazard Ranking

Dam Failure	Disease Outbreak	Drought	Earthquake	Flood	Geologic
Medium	Medium	Low	Low	Low	Low





Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter	Severe Weather	Severe Winter Weather	Wildfire
Low	High	High	High	High	High	Low

# 9.13.7 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 9.13-15 and Table 9.13-16 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 9.13-14. Status of Previous HMP Mitigation Actions

2016 Action Number Action Description			Status (In Progress, No	Include in the 2021 HMP Update?			
		Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
Hopatcong- 1 (new)	Ensure continuity of operations at critical facilities and municipal buildings: Identified at this time, purchase and install Hopatcong Borough DPW Bldg Generators	DPW, OEM	In Progress. All Borough buildings have generator back up power. A generator is still needed for St. Jude church Parrish center, as the Borough has entered into a mutual aid agreement with them to be an emergency shelter.	х	2021- Hopatcong- 001		
Hopatcong- 2 (new)	Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan; consider including hazard identification, hazard zones risk assessment information, and hazard mitigation goals as identified in the HMP. Further, the findings and recommendation of the HMP will be considered during any future site plan review processes.	Planning	Ongoing Capability				
Hopatcong- 3 (new)	Offer training on best practices for hazard mitigation and hazard identification for Borough employees.	OEM Coordinator	Ongoing Capability				
Hopatcong- 4 (old #1)	Retrofit the windows on Hudson Maxim School located on River Styx Road to meet high wind standards.	Borough Administration					





			Status (In Progress, No	Include in the 2021 HMP Update?			
2016 Actio	on Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
Hopatcong- 5 (old #2)	Retrofit roof to meet current snow load standards on Hopatcong Municipal Facility located on River Styx Road.	Borough Administration	Complete. New roof has been installed on the building.				
Hopatcong- 6 (revised old #6)	The Borough will work with the NJDEP to alleviate flooding of the small stream that flows through the area of Flora Avenue between Durban and Wills Avenue.	Borough Administration, NJDEP	Complete. DPW worked with the County and the stream bed has been dredged to alleviate flooding concerns.				
Hopatcong- 7 (old #8)	Enhance the current all-hazards public education and outreach program by developing, implementing and facilitating a multi-hazard public awareness program. Provide information on all types of hazards, preparedness and mitigation measures via the Borough website and social media.	OEM with support from County OEM	In Progress	х	2021- Hopatcong- 008		
Hopatcong- 8 (new)	Upgrade radio communication and pagers for fire department	Fire Department	In Progress. Fire Department pagers have been purchased, but the radio frequency used by the Fire Department is being phased out for emergency services by the FCC. A project is in the works to bring all the Borough emergency services onto one radio system.	Х	2021- Hopatcong- 005		

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

• HAB innovated project (see above in integration section).

# PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE

The Borough of Hopatcong 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 Hopatcong 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 9.13-15 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Hopatcong 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 9.13-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.13-15	Proposed Hazard	l Mitigation Initiatives	5
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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- Hopatcon g-001	St. Jude Parrish Center Backup Power	<b>Problem</b> : Backup power sources are necessary to maintain critical services for critical facilities. The Borough has entered into a mutual aid agreement with the St. Jude Church Parish to be an emergency shelter. The Parish lacks a backup power source.	Existing			V	W	W	Severe Weather,	Weather,		Weather,		Weather,		Administrat	FEMA HMGP and BRIC, USDA Communit y Facilities Grant	Ensure s continu ity of					
		<b>Solution:</b> The Engineer will research what size generator is needed to power the Parish. The Borough will then assist with the purchase and installation of the selected generator and necessary electrical components to supply backup power to the shelter.		Severe Winter Weather, Hurricane, Nor'Easter	1, 2, 6	Engineer, St Jude Parish	Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Municipal Budget	operati ons of shelteri ng locatio n	\$50,0 00	3 ye ars	Hig h	SIP	ES										
2021- Hopatcon	Woodchipper	<b>Problem:</b> A new chipper is needed to help with storm clean up as most storms cause tree and utilities damage in the Borough.	Existing	Severe Weather, Severe Existing Winter	Weather, Severe	Weather, Severe	Weather, Severe	5	Public	Borough	Increas ed capabil ity for storm	\$5,00	1 ye	Hig	SIP	ES							
g-002		<b>Solution:</b> The Borough will purchase a new woodchipper and train staff in its use. The Borough		Weather, Hurricane, Nor'Easter	ricane,	Works	Budget	respon se and cleanu p	0	ar	h	511	LS										
2021-	Filters for	<b>Problem:</b> Nutrients entering the lake through stormwater contribute to harmful algal blooms.	Existing	Severe Weather,				HMGP,	Reduct ion in		2												
Hopatcon g-003	Lakeside Storm Drains	<b>Solution:</b> The Borough will purchase and install filters on storm drains. Public Works will be in charge of the installation and maintenance of these filters.		sting Infestation and Invasive Species	n 2	Public Works	BRIC, Borough budget	harmfu l algal blooms	Medi um	2 ye ars	Hig h	SIP	SP, NR										
2021-	Harmful Algal Bloom Control	<b>Problem</b> : Harmful algal blooms present a health concern and are damaging to the environment.	N/A	Infestation and Invasive Species	Infestation	Infestation			NJ DEP	Reduct ion in													
Hopatcon g-004		<b>Solution:</b> The Administration will work with the NJDEP to gain approval to introduce albino carp into the lake to eat plant life that contributes to harmful algae blooms.			2	Administrat ion	grants, environme ntal grants	harmfu l algal blooms	Medi um	Lo ng	Hig h	NSP	NR										





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- Hopatcon g-005	Radio System	<b>Problem</b> : The Borough requires an upgraded radio system that can be used by all our emergency services to better coordinate emergency response in the town during storms and other emergencies. <b>Solution:</b> The Borough will purchase an	N/A	All Hazards	6	Emergency Manageme nt	Emergency Manageme nt Performanc e Grants (EMPG) Program,	Coordi nated emerge ncy respon se	Medi um	2 ye ars	Hig h	LPR	ES
		upgraded radio system that will be able to be used into the future. <b>Problem</b> : The Ambulance Squad building is over 40 years old and deteriorating.					Borough Budget FEMA HMGP, BRIC,	se					
2021- Hopatcon g-006	Ambulance Squad Building	<b>Solution:</b> The Borough will construct a new building for the Ambulance Squad with modern standards for construction of critical facilities.	Existing	All Hazards	1, 2, 6	Administrat ion, Engineer, Ambulance Squad	USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Borough Budget	Critical facility protect ed from damag es	High	Wi thi 5 ye ars	Hig h	SIP	PR
2021-		<b>Problem</b> : Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has one repetitive loss property but other properties may be impacted by flooding as well.		Flood		NFIP Floodplain Administrat	FEMA HMGP and	Elimin ates flood damag e to homes and residen		3			
Hopatcon g-007	Repetitive Loss Mitigation	<b>Solution:</b> Conduct outreach to 5 flood- prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property- owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating	Existing	Flood, Severe Weather	2	or, supported by homeowner s	FMA, local cost share by residents	ts, creates open space for the munici pality increas ing flood	\$400, 000	ye ars	Hig h	SIP	РР



Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution residential homes in the flood prone areas that experience frequent flooding	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
		<ul><li>(high risk areas).</li><li>Problem: The Borough would like to enhance existing outreach and develop additional hazard outreach.</li></ul>						Increase					
2021- Hopatcon g-008	Hazard Outreach Enhancement	<b>Solution:</b> The Borough will enhance the current all-hazards public education and outreach program by developing, implementing and facilitating a multi-hazard public awareness program. Provide information on all types of hazards, preparedness and mitigation measures via the Borough website and social media.	Existing	All Hazards	3	Administrat ion	Borough budget	Increas ed public awaren ess and prepare dness	Staff time	l ye ar	Hig h	EAP	Ы
2021- Hopatcon g-009	Flood Damage Prevention Ordinance Update	<ul> <li>Problem: The Borough's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.</li> <li>Solution: The Borough will update the Flood Damage Prevention Ordinance to include the freeboard requirement.</li> </ul>	New	Flood	2	FPA, Administrat ion	Borough budget	Meet state standar ds, reduce future flood risk	Staff time	6 m on ths	Hig h	LPR	PR
2021-	Disaster Debris	<b>Problem</b> : The Borough lacks a Disaster Debris Management Plan.		All	_	Public Works,	Borough	Increas ed plannin	Staff	1	Hig	I DD	EG
Hopatcon g-010	Management Plan	<b>Solution:</b> The Borough will develop and adopt a Disaster Debris Management Plan.	Existing	Hazards	5	Emergency Manageme nt	budget	g and capabil ities	time	ye ars	h	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

#### Mitigation Category:

- 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* 

#### <u>Cost:</u>

The estimated cost for implementation.

#### <u>Benefits:</u>

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

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- 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.

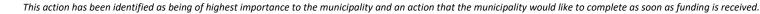




Table 9.13-16. Summary of Evaluation and Action Priorities

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- Hopatcong- 001	St. Jude Parrish Center Backup Power	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Hopatcong- 002	Woodchipper	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021- Hopatcong- 003	Filters for Lakeside Storm Drains	0	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2021- Hopatcong- 004	Harmful Algal Bloom Control	0	1	1	1	1	1	0	0	1	1	1	1	1	1	11	High
2021- Hopatcong- 005	Radio System	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Hopatcong- 006	Ambulance Squad Building	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Hopatcong- 007	Repetitive Loss Mitigation	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2021- Hopatcong- 008	Hazard Outreach Enhancement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Hopatcong- 009	Flood Damage Prevention Ordinance Update	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2021- Hopatcong- 010	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).





A



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

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

<mark>RED</mark> high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard





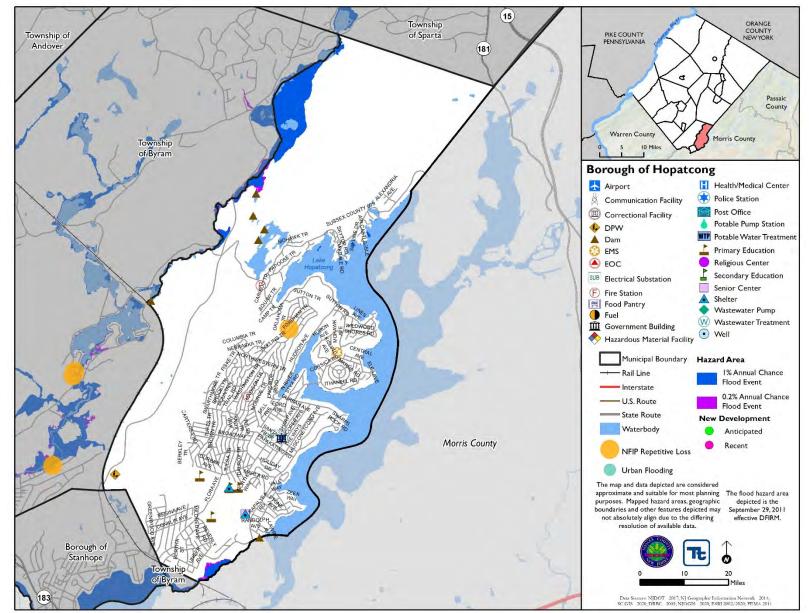


Figure 9.13-1. Borough of Hopatcong Hazard Area Extent and Location Map 1



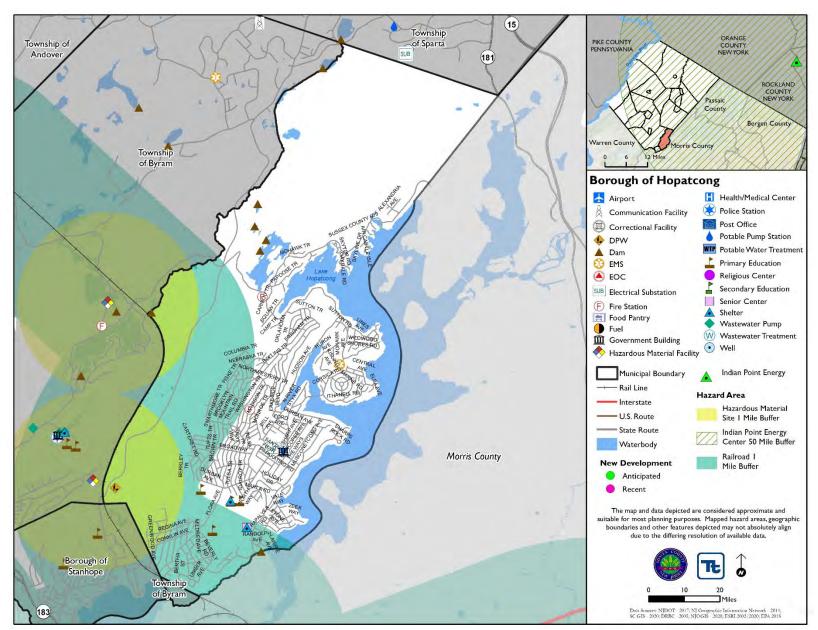


Figure 9.13-2. Borough of Hopatcong Hazard Area Extent and Location Map 2



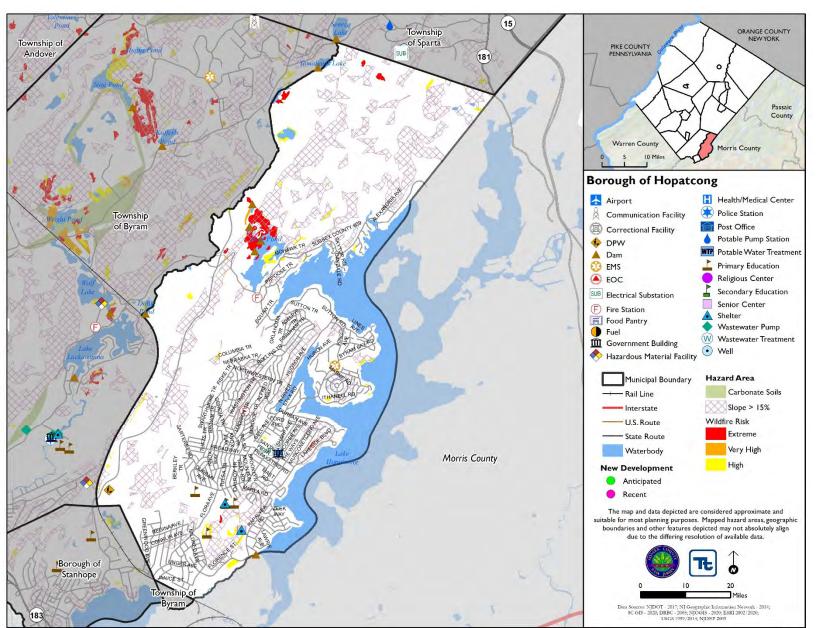


Figure 9.13-4 Borough of Hopatcong Hazard Area Extent and Location Map 3



	Acti	ion Wo	rksheet					
Project Name:	Public Works Maintenan							
	2021-Hopatcong-001		C 1					
Project Number:	2021 Hopatoong oor							
Risk / Vulnerability	Severe Weather, Severe	Winton	Waathan Uumiaana Na	"Eastar				
Hazard(s) of Concern:								
Description of the Problem:	Borough has entered into	Backup power sources are necessary to maintain critical services for critical facilities. The Borough has entered into a mutual aid agreement with the St. Jude Church Parish to be an emergency shelter. The Parish lacks a backup power source.						
Action or Project Intended								
Description of the Solution:	will then assist with the p	The Engineer will research what size generator is needed to power the Parish. The Borough will then assist with the purchase and installation of the selected generator and necessary electrical components to supply backup power to the shelter.						
Is this project related to a	Critical Facility? Yes	s 🛛	No 🗌					
Level of Protection:	N/A		stimated Benefits losses avoided):		Ensures continuity of operations of sheltering location			
Useful Life:	20 years	G	oals Met:		1, 2, 6			
Estimated Cost:	\$50,000	Structure and Infrastructure Projects (SIP)						
Plan for Implementation								
Prioritization:	High		esired Timeframe for nplementation:	r	Within 3 years			
Estimated Time Required for Project Implementation:	1 year		otential Funding Sou	rces:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget			
Responsible Organization:	Administration, Engineer St Jude Parish	t	ocal Planning Mechar b be Used in nplementation if any		Hazard Mitigation, Emergency Management			
Three Alternatives Conside								
	Action		Estimated Cost		Evaluation			
Alternatives:	No Action Install solar panels		\$0 \$100,000		Problem continues. eather dependent; need large punt of space for installation; xpensive if repairs needed			
	Install wind turbine \$100,000 Weather dependent; po to wildlife; expensive needed							
Progress Report (for plan i	maintenance)							
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								



	Action Worksheet						
Project Name:	Public Works Maintenan	Public Works Maintenance Building Backup Power					
Project Number:	2021-Hopatcong-001						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Project will protect critical services of the shelter at the St. Jude Church Parish.					
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 3 years					
Agency Champion	1	Administration, Engineer, St Jude Parish					
Other Community Objectives	1						
Total	12						
Priority (High/Med/Low)	High						





	Action	Worksheet					
Project Name:	Filters for Lakeside Storm Dr						
Project Number:	2021-Hopatcong-003	2021-Hopatcong-003					
Risk / Vulnerability							
Hazard(s) of Concern:	Severe Weather, Infestation a	nd Invasive Species					
Description of the Problem:	Nutrients entering the lake the	Nutrients entering the lake through stormwater contribute to harmful algal blooms.					
Action or Project Intended							
Description of the Solution:	The Borough will purchase and install filters on storm drains. Public Works will be in charge of the installation and maintenance of these filters.						
Is this project related to a	Critical Facility? Yes	🗌 No 🖾					
Level of Protection:	Reduction in nutrients in stormwater	Estimated Benefits (losses avoided):	Reduction in harmful algal blooms				
Useful Life:	5 years	Goals Met:	2				
Estimated Cost:	Medium	Mitigation Action Type:	Structure and Infrastructure Project				
Plan for Implementation							
Prioritization:	High	Desired Timeframe for Implementation:	2 years				
Estimated Time Required for Project Implementation:	3 months	Potential Funding Sources:	HMGP, BRIC, Borough budget				
Responsible Organization:	Public Works	Local Planning Mechanisms to be Used in	Hazard mitigation, Stormwater management				
Three Alternatives Conside	ared (including No Action)	Implementation if any:					
Three Alternatives Collsine	Action	Estimated Cost	Evaluation				
	No Action	\$0	Problem continues.				
Alternatives:	Build large detention basins to catch all runoff	High	Costly				
	Build nutrient filtration systems for all stormwater pipes	High	Costly				
Progress Report (for plan i	naintenance)						
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							

\_\_\_\_\_





	Action Worksheet						
Project Name:	Filters for Lakeside Storm Drains						
Project Number:	2021-Hopatcong-003	2021-Hopatcong-003					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	0						
Property Protection	1	Properties protected from flooding					
Cost-Effectiveness	1						
Technical	1	The project is technically feasible					
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, Infestation and Invasive Species					
Timeline	1	2 years					
Agency Champion	1	Public Works					
Other Community Objectives	1						
Total	12						
Priority (High/Med/Low)	High						





	Action	Worksheet						
Project Name:	Ambulance Squad Building							
Project Number:	2021-Hopatcong-006							
Risk / Vulnerability								
Hazard(s) of Concern:	All Hazards							
Description of the	The Ambulance Squad buildi	ng is over 40 years old and de	eteriorating.					
Problem:								
Action or Project Intended								
Description of the Solution:	The Borough will construct a new building for the Ambulance Squad with modern standards for construction of critical facilities.							
Is this project related to a	Critical Facility? Yes	No 🗌						
Level of Protection:	500-year storm event	Estimated Benefits (losses avoided):	Critical facility protec from damages	ted				
Useful Life:	15 years	Goals Met:	2,6					
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastruc Projects (SIP)	cture				
Plan for Implementation								
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years					
Estimated Time Required for Project Implementation:	1 year	Potential Funding Source	FEMA HMGP, BRIC, USDA Community Facilities Grant Program Emergency Management Performance Grants (EMPG) Program, Bord Budget	nt				
Responsible Organization:	Administration, Engineer, Ambulance Squad	Local Planning Mechanis to be Used in Implementation if any:		nt				
Three Alternatives Conside	ered (including No Action)							
	Action	Estimated Cost	Evaluation					
	No Action Rebuild facility to new	\$0	Problem continues.					
Alternatives:	standards	standards						
	Build secondary facility protected to new standards	High Costly and not necessary High						
Progress Report (for plan		4						
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								





	Action Worksheet						
Project Name:	Ambulance Squad Building						
Project Number:	2021-Hopatcong-006						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Project will protect critical services of Ambulance Squad Building					
Property Protection	1	Project will protect Ambulance Squad Building from future damages.					
Cost-Effectiveness	1						
Technical	1	The project is technically feasible					
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	All Hazards					
Timeline	0	Within 5 years					
Agency Champion	1	Administration, Engineer, Ambulance Squad					
Other Community Objectives	1	Protection of critical services					
Total	12						
Priority (High/Med/Low)	High						



	А	ction W	orkshee	t			
Project Name:	Repetitive Loss Mitig						
Project Number:	2021-Hopatcong-00						
	Risk / Vulnerability						
Hazard(s) of Concern:	Flood, Severe weather						
nazaru(s) or concern.							
Description of the Problem:	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has one repetitive loss property but other properties may be impacted by flooding as well.						
	Action or Proje						
Description of the Solution:							
Is this project related to a C Lifeline?	Critical Facility or	Yes		No 🖂			
Level of Protection:	1% annual chance flood event + freeboard (in accordance with flood ordinance)		Estimated Benefits (losses avoided):		Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.		
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)		Goals Met:		2		
Estimated Cost:	\$400,000		Mitigat	ion Action Type:	Structure and Infrastructure Project		
		for Imp	lementa				
Prioritization:	High		Desired Timeframe for Implementation:		6-12 months		
Estimated Time Required for Project Implementation:	Three years		Potential Funding Sources:		FEMA HMGP and FMA, local cost share by residents		
Responsible Organization:	NFIP Floodplain Administrator, suppor homeowners	-	Local Planning Mechanisms to be Used in Implementation if any:				
	Three Alternatives	s Consid					
	Action		E	stimated Cost	Evaluation		
Alternatives:	No Action Elevate homes		\$0		Current problem continues When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads		
	Elevate roads			\$500,000	Elevated roadways would not protect the homes from flood damages		
	Progress Re	port (fo	r plan m	aintenance)			
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





	Action Worksheet					
Project Name:	Repetitive Loss Mitigation	on				
Project Number:	2021-Hopatcong-007					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1	Families moved out of high-risk flood areas.				
Property Protection	1	Properties removed from high-risk flood areas.				
Cost-Effectiveness	1	Cost-effective project				
Technical	1	Technically feasible project				
Political	1					
Legal	1	The Borough has the legal authority to conduct the project.				
Fiscal	0	Project will require grant funding.				
Environmental	1					
Social	0	Project would remove families from the flood prone areas of the Borough.				
Administrative	0					
Multi-Hazard	1	Flood, Severe weather				
Timeline	0					
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners				
Other Community Objectives	1					
Total	10					
Priority (High/Med/Low)	High					





# 9.14 TOWNSHIP OF LAFAYETTE

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

## 9.14.1 Hazard Mitigation Planning Team

The following individuals are the Township of Lafayette's identified HMP update primary and alternate points of contact and NFIP Floodplain Administrator.

Primary Po	int of Contact		Alternate Point of Contact			
Name / Title: Richard Hughes, Committeeman/Emergency Management Coordinator Address: 33 Morris Farm Road, Lafayette, NJ 07848 Phone Number: (973) 985-5971 Email: hughesr22@gmail.com		Name / Title: Bill Macko, Road Foreman/Roads Address: 33 Morris Farm Road, Lafayette, NJ 07848 Phone Number: (973) 841-0415 Email: ltrd@ptd.net				
NFIP Floodplain Administrator Name / Title: Debra Card, Zoning Officer/Zoning Address: 33 Morris Farm Road, Lafayette, NJ 07848 Phone Number: (973) 383-1817 x12 Email: zoning@lafayettetwp.org						
Name	Title		Method of Participation			
Richard Hughes	Committeeman/Emergency Management Coordinator		Primary point of contact; attended the kickoff meeting, annex training, risk assessment meeting and mitigation strategy workshop; provided data and information for the annex update; reviewed annex*			
Bill Macko	DPW Forman/Roads/Fire Chie	f	Alternate point of contact; reviewed annex*			
Debra Card	Zoning Officer/Zoning		NFIP Floodplain Administrator			
Greg Corcoran	Mayor		Reviewed annex*			
Michael Vreeland	Engineer		Reviewed annex*			
Toni Grisaffi	CFO		Reviewed annex*			
David Banish	Planner		Reviewed annex*			

#### Table 9.14-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B

## **Jurisdiction Profile**

Lafayette Township is centrally located in Sussex County. It is bordered to the north by Wantage Township, to the east by Hardyston Township, to the south by Sparta and Andover Townships, and to the west by Frankford and Hampton Townships. The Township covers a total area of approximately 18.0 square miles. The following unincorporated communities are located within the Township: Harmonyville, Hopkins Corner, Warbasse, and Branchville Junction. There are many small ponds located throughout the Township and the Paulins Kill flows through the southwestern corner of the Township.





According to the U.S. Census, the 2010 population for the Township of Lafayette was 2,538. The estimated 2018 population was 2,390, a 5.8 percent increase from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 5.4 percent of the population is 5 years of age or younger and 18.2 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.

## 9.14.2 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.

Type of	2	045	2017 2015		2018		2019			
Development	2015 2016			2017     2018       struction Issued Since the Previous HMP					019	
INU	Total	Within SFHA	Total	Within SFHA	Total	Within With		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	Devel	ype of opment	Location (address # of Units / and/or block Structures and lot)		(address and/or block Known Hazard		ne(s)*	Description / Status of Development		
	R	ecent Majo	or Develo	pment and	Infrastru	icture fron			T	
400,000 sq ft industrial building and cogeneration power plant	Industr	ial	1		144 Route 94 S.		Nuclear Incident Hazard Area, Carbonate Rock Geologic Hazard Area		Approved	
Expansion and relocation of recycling center at the Sussex County solid waste municipal utilities authority	Recycl Center	ing	1	Route 94		Route 94 Nuclea Hazard		Incident Area	Approv	ed
Know	n or Ant	icipated M	lajor Dev	elopment a	nd Infra	structure i	n the Nex	t Five (5) Ye	ars	
Shoppes of Lafayette Village	Mixed		waste w treatme recreati	nt facility, on	75 Route 15 S		Nuclear Hazard	Incident Area	Propose	ed

### Table 9.14-2. Recent and Expected Future Development

 $^{*}$  Only location-specific hazard zones or vulnerabilities identified.

SFHA = Special Flood Hazard Area





## 9.14.3 Capability Assessment

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

		Authority that		been integra	ts of the HMP ated into your ances/plans?	
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Codes, Ordinances, & Requirements						
Building Code	Yes	State & Local	Yes	Yes	-	
Adopted 9/3/2019 The Building Department and Construct Code Act (N.J.S. 52:27D-119 et seq.) and	00	1 0	Yes – if	ith State Uniform	n Construction	
Code Act (N.J.S. 52:27D-119 et seq.) and	Chapter 8 – Build	ing and Housing.	Yes – if municipality			
Zoning Code	Yes	Local	has a Planning Board	Yes	-	
<ul> <li>Comment:         <ul> <li>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.</li> <li>The Zoning Officer is responsible for this code in compliance with Chapter 13- Zoning.</li> </ul> </li> </ul>						
Subdivisions	Yes	Local	Yes – if municipality has a	Yes	-	

Table 9.14-3. Planning, Legal and Regulatory Capability





				been integra	ects of the HMP grated into your linances/plans?	
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated? Planning Board	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
<ul> <li>P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance r the filing of such plats with the county re condition for the issuance of a permit for or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this The Land Use Board is responsible for t Procedures.</li> </ul>	equire approval of ecording officer and r any development exempt from such s the planning board of this act . Dictate ounty planning board and for the approva section.	Subdivision plats by re- ad approval of site plan. A except that subdivision ite plan review and app d whenever the board of ed by the Municipal La. ard shall provide for the al of those subdivisions	esolution of the p s by resolution of n or individual lo proval; provided of adjustment has nd Use Law. NJ he review of all st affecting county	lanning board as f the planning boo ot applications for that the resolution jurisdiction over Statute 40:27-6.2 ubdivisions of lan road or drainag	a condition for ard as a r detached one on of the board - a subdivision - the board of ad within the e facilities as	
Stormwater Management	Yes	Local	Yes	Yes	-	
See Title 7 of the NJ Administrative Cod     The DPW is responsible for this ordinan Post-Disaster Recovery		with Chapter 21- Storm -	water Control. No	-	-	
Real Estate Disclosure Comment: N.J.A.C. 13:45A-29.1 - Before signing a						
<b>Real Estate Disclosure</b> <i>Comment: N.J.A.C. 13:45A-29.1 - Before signing a</i> <i>(POS) approved by the New Jersey Real Estate Con</i> <i>improvements, fees for services and amenities, the t</i> <i>and police, as well as any hazards, risks or nuisanc</i>	contract of sale, a nmission. The POS ype of title and ow	Consumer Affairs all purchasers must reco provides informations mership interest being of	eive a New Jerse such as estimated offered, its proxin Yes – if municipality has a Planning	y Public Offering d completion date	es for	
Real Estate Disclosure Comment: N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Con improvements, fees for services and amenities, the t and police, as well as any hazards, risks or nuisance Growth Management	e contract of sale, a nmission. The POS ype of title and ow es in or around the No No e Zoning Ordinane lineation of Growt	Consumer Affairs all purchasers must rece 5 provides information s mership interest being of e subdivision. - - ce; Also - Plan Endorse h Areas and Environs;	eive a New Jerse such as estimated offered, its proxin Yes – if municipality has a Planning Board ement Process via Use of the endor	y Public Offering d completion date nity to hospitals, No a the State Develo sed plans in the i	es for schools, fire - opment &	
Redevelopment Plan provides for the de of state environmental regulations make Site Plan Review	e contract of sale, a nmission. The POS ype of title and ow es in or around the No No e Zoning Ordinane lineation of Growt	Consumer Affairs all purchasers must rece 5 provides information s mership interest being of e subdivision. - - ce; Also - Plan Endorse h Areas and Environs;	eive a New Jerse such as estimated offered, its proxin Yes – if municipality has a Planning Board ement Process via Use of the endor	y Public Offering d completion date nity to hospitals, No a the State Develo sed plans in the i	es for schools, fire - -	
Real Estate Disclosure Comment: N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Con improvements, fees for services and amenities, the t and police, as well as any hazards, risks or nuisanc Growth Management Comment: • State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make	e contract of sale, a nmission. The POS ype of title and ow es in or around the No e Zoning Ordinand lineation of Growt s the Plan Endorse Yes Yes w which sets forth of commissioners the county by sala ties as set forth an ile of the planning y planning board a inotify the county re djoining county re ic lands shown on ast 10 days prior t	Consumer Affairs all purchasers must rece provides information is inership interest being of e subdivision	eive a New Jerse such as estimated offered, its proxin Yes – if municipality has a Planning Board ement Process via Use of the endor a management str Yes – if municipality has a Planning Board for plans, etc., the a county planning d and for the app this section. 40 of all municipal municipality control difference of a mode of all municipal municipal of a nor official count ereon by personal osed ordinance.	y Public Offering d completion date nity to hospitals, No a the State Develous sed plans in the is rategy. Yes imeframes for dev board shall pro roval of those su :27-6.10 In order ities in the county inces of the muni ny revision or am g within 200 feet ty map. Such nou l delivery or by c	es for schools, fire - - - opment & mplementation - - velopment wide for the bdivisions that county v, each cipality in effect tendment of tof a municipa tice shall be	





		Authority that		been integra	ts of the HMP ited into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	-
Comment: The NJ State Law Flood Area Control A federal acts to support minimization of J floodplain ordinances of each municipa the NFIP requires a floodplain ordinance effective June 20, 2016. The Construction Official is responsible The ordinance was last updated in Augu Wellhead Protection	lood losses. They lity must be review ce. Regulations fo for this ordinance	do not require local ad red for compliance with r the Flood Control Ha	option but as en these regulation zards Act were a	forced by the NJI as. In addition, p adopted in 2007 a	DEP, the articipation in nd amended
	110	-	INU	-	-
Comment:		_			
Emergency Management	Yes	Local	No	-	-
Comment: • Chapter 3 Police Regulations					
Climate Change	No	-	No	_	-
Comment:					
	N-		N-		
Disaster Recovery Ordinance	No	-	No	-	-
Comment:		1			
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:					
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	No	Yes	-
Comment:					
These ordinances follow Ridgeline Pres	ervation.				
Planning Documents	1				
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
<ul> <li>2018 Revised NJ Statute 40:27-2; the control the county. The master plan of a county, show the county planning board's recontamong other things, the general location developments, parkways, playgrounds, j the general location and extent of forest water supply, sanitary and drainage fail important to the development of the county municipalities within the county in any advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be</li> <li>The Planning Board is responsible for the county of the county of the county is a state of the county of th</li></ul>	with the accompa- nmendations for the n, character, and forests, reservation s, agricultural are cilities, or the protent nty. The county pla natters whatsoever ers with respect to and requires that consistent with the	nying maps, plats, char e development of the te extent of streets or road ns, parks, airports, and as, and open-developm ection of urban develop nning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no	ts, and descripti rritory covered ls, viaducts, brid other public wa ent areas for pu ment, and such ourage the co-op e integrity of the lopment program Aug 1, 1976 40: are a master pla	ve and explanato by the plan, and i ges, waterway a ys, grounds, plac rposes of conserv other features as eration of the loc county master p ns and budgets f 55D-28 provides n and update it e	ry matter, shall nay include, nd waterfront es and spaces; vation, food and may be val lan and to for capital the required very 6 years.
Capital Improvement Plan	Yes	Local	No	Yes	-
<b>Comment:</b> The Township Committee is responsible reviewed/ updated annually.					these projects;
Disaster Debris Management Plan	No	-	No	-	2020- L afavatta 010
Comment:		l		1	Lafayette-010
Floodplain or Watershed Plan	No	-	No	-	-
Comment:					
Stormwater Management Plan	Yes	Local	Yes	Yes	-
		1			

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		Authority that		been integra	s of the HMP ted into your ances/plans?
Comment:	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
The Stormwater Management rules (N. the required components of regional as design and performance standards for include groundwater recharge, runoff consideration, the use of nonstructural impervious surfaces, minimizing the us requirements for groundwater recharg of major development to be located with without prior authorization from the D The Emergency Management/Engineer Stormwater Pollution Prevention Plan Comment:	nd municipal storm new (proposed) dev quantity controls, a stormwater manag e of stormwater pip e, stormwater runoj hin or to discharge epartment under the	water management plan velopment. The design a nd runoff quality contro ement techniques includ es, preserving natural a ff quantity control, storr runoff from the major a e Flood Hazard Area C	ns and establish i nd performance ols. The rules em ding minimizing drainage feature nwater runoff qu development into ontrol Act Rules	the stormwater muster muster muster standards for new phasize, as a prin disturbance, mini s, etc. The rules a uality control, and a 300-foot ripard, N.J.A.C. 7:13.	anagement w development hary mizing Iso set forth I the prohibition
<ul> <li>The Phase II New Jersey Pollutant Dis 7:14A) were published in the February associated with existing stormwater ru as required under the Federal Clean W operate small municipal separate storn municipalities, certain public complex or maintain highways. The permit prog nonpoint source pollutant loads from t ordinances (litter control, pet waste, w management plan and implementing of basin cleaning); implementing solids a education component.</li> </ul>	2, 2004, NJ Regist noff. The NJPDES I Vater Act. These NJ. n sewer systems, kn es such as universiti gram establishes the hese sources. The S ildlife feeding, prop rdinance(s); requiri	er. These NJPDES rule rules establish a regula PDES rules govern the own as MS4s. Under th ies and hospitals, and S e Statewide Basic Require tatewide Basic Require oer waste disposal, etc.) ng certain maintenance	s are intended to tory program for issuance of pern is program, pern tate, interstate a rements that mu ments include mu ; the developmen e activities (such	address and redu- existing stormwo nits to entities that nits must be secur nd federal agenci st be implemented easures such as: t nt of a municipal as street sweepin	ice pollutants ater discharges t own or red by es that operate l to reduce he adoption of stormwater g and catch
Urban Water Management Plan	No	-	No	-	-
Comment:					
Habitat Conservation Plan	No	-	No	-	-
Comment:					
Economic Development Plan	Yes	Local	No	Yes	-
<b>Comment:</b> The Economic Development Subcomm subcommittee was created in 2015.	ittee (Township Cor	nmittee, Planning Boar	d) are responsib	le for this plan. T	he
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment: • NJ Coastal Area Facility Review Act ( including construction, relocation, and structures, and site preparation. This	enlargement of bui law is implemented	ildings or structures, an	nd excavation, gr ione managemen	ading, shore prot	ection
Community Wildfire Protection Plan	No	-	No	-	-
Comment:		1			
Community Forest Management Plan	No	-	No	-	-
Comment:		1			
Transportation Plan	Yes	Local	No	Yes	-
Comment: This plan is included in the Master Pla	ın.	I		,	
Agriculture Plan	No	-	No	-	-
Comment:	-				
Climate Action Plan	No	-	No	-	-
Comment:					

\_\_\_\_\_



		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment:					
Business Development Plan	No	-	No	-	-
Comment:					
Other: Open Space Plan	Yes	Local	No	Yes	-
Comment: • The Open Space Commission and Towns Response/Recovery Planning	ship Committee ar	e responsible for this pl	an, which is rev	iewed annually.	
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-
<ul> <li>Each county and municipality in the Stat necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State</li> <li>The Office of Emergency Management is</li> </ul>	Emergency Operation teen adopted by the te Emergency Oper	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2	ted no later than ncy Managemen 222, s.19.	i one year after th	ie State
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-
Comment:					
Post-Disaster Recovery Plan	No	-	No	-	2020- Lafayette-007
Comment:					
<b>Continuity of Operations Plan</b>	No	-	No	-	-
Comment:					
Public Health Plan	No	-	No	-	-
Comment:					
Other	No	-	No	-	-

## Table 9.14-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, developments are reviewed and approved through municipal Land Use Board. Zoning permits are issued through the municipal Zoning Officer
Does your jurisdiction have the ability to track permits by hazard area?	Yes, permits are tracked by address and Lot/Block which are categorized in zones and hazard areas
Does your jurisdiction have a buildable lands inventory? -If yes, please describe briefly. -If no, please quantitatively describe the level of buildout in the jurisdiction.	Yes, the inventory was prepared in support of the Fair Share Housing Plan prepared for the NJ Affordable Housing / Council on Affordable Housing. The Fair Share Housing Plan identifies the vacant land and buildability or constraints of the available land.

#### ADMINISTRATIVE AND TECHNICAL CAPABILITY

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





Table 9.14-5. 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	No	-				
Open Space Board / Committee	Yes	Open Space Advisory Committee; Recreation Committee				
Economic Development Commission / Committee	Yes	In progress of developing – Economic Development Subcommittee				
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Available through PSAP, SC Sheriff Communications Center				
Maintenance program to reduce risk	Yes	DPW maintains tree trimming, culvert cleaning/repairs				
Mutual aid agreements	Yes	Surrounding communities				
Technical/Staffing Capability						
Planners or engineers with knowledge of land development and land management practices	Yes	Municipal Engineer and Planner – contracted and appointed each year				
Engineers or professionals trained in building or infrastructure construction practices	Yes	Municipal Engineer and Planner – contracted and appointed each year				
Planners or engineers with an understanding of natural hazards	Yes	Municipal Engineer and Planner – contracted and appointed each year				
Staff with training in benefit/cost analysis	Yes	Contracted				
Staff with training in green infrastructure	No	-				
Staff with education/knowledge/training in low impact development	No	-				
Surveyor	Yes	Contracted when needed				
Stormwater engineer	Yes	Contracted when needed				
Personnel skilled or trained in GIS applications	Yes	Contracted through Engineering firm responsible for maintaining Tax and Zoning Maps- annual updates-				
Local or state water quality professional	Yes	Contracted when needed				
Scientist familiar with natural hazards in local area	No	-				
Emergency manager	Yes	Richard Hughes, Committeeman/Emergency Management Coordinator				
Watershed planner	No	-				
Environmental specialist	Yes	Yes, annual contract with NJ Conservancy				
Grant writers	Yes	Contracted				
Resilience Officer	No	-				
Other: NFIP Floodplain Administrator	Yes	Construction Official				
Other: Professionals trained in conducting damage assessments	Yes	Part of emergency management				

### Table 9.14-5. Administrative and Technical Capabilities

#### **FISCAL CAPABILITY**

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

#### Table 9.14-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital Improvements Project Funding	Yes



Financial Resource	Accessible or Eligible to Use?
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
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 Lafayette.

#### Table 9.14-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
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.	No
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes – link to Sussex County's Emergency Management page
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.	No

#### **COMMUNITY CLASSIFICATIONS**

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

#### Table 9.14-8. 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	Unknown	-
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.

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

### Table 9.14-9. Adaptive Capacity

Notes:

Strong = Capacity exists and is in use; Moderate = Capacity may exist, but is not used or could use some improvement;

Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

#### NATIONAL FLOOD INSURANCE PROGRAM

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

#### Table 9.14-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Engineering
Who is your floodplain administrator? (name, department/position)	Nevitt Duveneck, Municipal 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?	August 2020
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
When was the most recent Community Assistance Visit or Community Assistance Contact?	January 27, 1994
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





Criterion	Response
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 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, and the community has not considered joining the program.
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	3 policies \$770,000 insurance in force \$1,544 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	7 claims \$24,566
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

References: FEMA 2020

#### ADDITIONAL AREAS OF EXISTING INTEGRATION

• There are no additional areas of existing integration identified at this time.

#### **OPPORTUNITIES FOR FUTURE INTEGRATION**

• There are no opportunities for further integration identified at this time.

### 9.14.4 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 Lafayette'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.

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 <sup>rd</sup> and 24th.	No impacts reported in this plan
January 20, 2020 and continuing	EM-3451, DR- 4488: COVID- 19 Pandemic	Yes	The coronavirus pandemic resulted in the need for	Lafayette's Municipal Building was closed to the public.

#### Table 9.14-11. 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
			shutdowns and social distancing and mask requirements.	

Source: FEMA 2020, NOAA NCEI 2020 Note:

## 9.14.5 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 Lafayette 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 Lafayette 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 Lafayette has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

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

- Number of repetitive loss (RL) properties: 1
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

Source: FEMA 2019 Note: The number of SRL properties excludes RL properties.

#### **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 9.14-12. Critical Facilities and Lifelines Flood Exposure

		Exposure	
Name	Туре	1% Event	0.2% Event
22-15 Old Culvers Dam	Dam	Х	Х

Source: Sussex County Planning Partnership 2020

#### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

• Loss of Power which regularly impacts the Municipal Town Hall and the Fire department buildings during severe weather. Budgets and unavailability of natural gas have been obstacles.





- The Township has budgetary constraints with hiring additional staff, procuring new equipment, or contracting 3rd party consultants to mitigate, monitor, or correct a hazard.
- The Township has budgetary constraints with design and installation of infrastructure improvements to mitigate a hazard.
- The Township does not have subject matter expertise in house within municipality for mitigating a hazard or more detailed planning for the hazard.
- The Township does not have the emergency response resources (as all volunteer) to be trained and available at all times. Reliance on mutual aid, for profit, and county emergency response resources.
- Flooding and lack of suitably sized equipment for more effective water removal from public areas, businesses, and resident homes increases flood risk.
- Traffic diversion is caused by flooding and debris results in increased traffic on local roads, closed businesses, and displaced residents from homes.
- Timely cleanup and removal of debris following a storm over a period of several days can overwhelm internal DPW resources, both manpower and equipment.
- The DPW facility requires eventual upgrades to protect continuity of operations and critical services.
- The Township has one repetitive loss property which is the municipal park. There are improvements which can be implemented to the Paulinskill Brook to prevent the magnitude of water backing up at the Rt 15 bridge and backflowing into the park and recreation area.
- The Township 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 Township of Lafayette 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 Lafayette. The Township of Lafayette 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 Lafayette indicated the following reasons why hazard rankings have changed since the 2016 HMP:

- The Township changed the hazard ranking for hazardous materials from medium to high. Two major highways traverse Lafayette, county roads also major routes for hazardous materials carriers, Lafayette has limited response capabilities. If the state highway or county road is shutdown (as has happened in the past) then detours go on local roads.
- The Township agreed with the remainder of the calculated hazard rankings.

### Table 9.14-13. Township of Lafayette Hazard Ranking

Dam Failure	Disease Outbreak	Drought	Earthquake	Flood	Geologic
Low	Medium	Medium	Low	Medium	Low





Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter	Severe Weather	Severe Winter Weather	Wildfire
High	High	Medium	High	High	High	Low

## 9.14.6 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 9.14-14. Status of Previous HMP Mitigation Actions

			Status (In Progress, No	Include in the 2021 HMP Update?	
2016	5 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Lafayette- 1 (new)	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood- proofing) or acquisition/relocation to protect structures from future damage, with repetitive loss and severe repetitive loss properties as a priority when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option. Phase 2: Work with the property owners to implement selected action based on available funding and local match availability.	Engineering via NFIP FPA with NJOEM, FEMA support	In Progress	Х	2021- Lafayette-003
Lafayette- 2 (new)	<ul> <li>Purchase and install generators at the following locations:</li> <li>Township municipal building</li> <li>Township elementary school</li> </ul>	OEM, Township Committee	In Progress	х	2021- Lafayette-001
Lafayette- 3 (new)	Work with the State of New Jersey to alleviate the flooding of Route 15 from the Paulinskill River.	Township, State of New Jersey	In Progress	х	2021- Lafayette-003
Lafayette- 4 (new)	Perform regular drainage system maintenance throughout Township.	DPW	No Progress	Х	2021- Lafayette-005





			Status (In Progress, No		the 2021 HMP odate?
2010	5 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
	Purchase Vac-All to assist with this maintenance program.				
Lafayette- 5 (new)	Portable generators and submersible pumps to assist homeowners during periods of flooding; allows fire department to respond to more critical events	OEM, Fire Department	No Progress	х	2021- Lafayette-004
Lafayette- 6 (new)	Install, reroute and increase the capability of storm drainage systems throughout the Township.	DPW	Ongoing Capability		
Lafayette- 7 (old #2)	When it comes time to replacing the roof of the Township DPW facility, current snow load standards will be incorporated into the design of the roof.	DPW	In Progress	х	2021- Lafayette-009
Lafayette- 8 (old #8)	Work with the County to upgrade culverts along Decker and Snover Roads. Due to the size of culverts, the County needs to do the work.	DPW, County Roads	Ongoing Capability		
Lafayette- 9 (old #12)	Continue to enhance and develop the all-hazards public education and outreach program for hazard mitigation and preparedness for the Township.	Township	Ongoing Capability		

The Township of Lafayette did not identify additional mitigation projects completed since 2016.

### **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Township of Lafayette 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 Lafayette 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 Lafayette 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.





Table 9.14-15	Proposed Hazard	<b>Mitigation Initiatives</b>	5
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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- Lafayette- 001	Municipal Building Backup Generator	<b>Problem</b> : Backup power sources are necessary to maintain critical services for critical facilities. Municipal Building does not have a generator and this area has been without power for over seven days in the past. The Township has researched and have proposals for 65kW generator with sized auto transfer switch. Natural gas was extended to the municipal building in October 2019 but the size of loads and location requires larger generator and more complicated installation resulting in higher costs	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	1, 6	Engineer, Public Works	FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG)	Ensure s continu ity of operati ons of Munici pal Buildin g	\$35,0 00	Wi thi n 1 ye ar	Hig h	SIP	ES
		<b>Solution:</b> The Township will purchase and install a 65kW natural gas generator with transfer switch.					Program, Municipal Budget						
2021- Lafayette- 002	Fire Department Backup Generator	<ul> <li>Problem: Backup power sources are necessary to maintain critical services for critical facilities. The Fire Department does not have a reliable and adequately sized emergency power generator. This section of town has been without power for more than 7 days. The Township has researched and have proposals for a 40kW generator with 400amp auto transfer switch, initial propane fueled with new tanks installed until natural gas is extended to Fire House building.</li> <li>Solution: The Township will purchase and install a 40kW generator with 400amp auto transfer switch, initial propane fueled with new tanks installed until natural gas is extended to Fire House building.</li> <li>Solution: The Township will purchase and install a 40kW generator with 400amp auto transfer switch, initial propane fueled with new tanks installed until natural gas is extended to Fire House building, the Township will modify the generator to allow for natural gas use.</li> </ul>	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	1, 6	Engineer, Public Works, Fire Department	FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Municipal Budget	Ensure s continu ity of operati ons of Fire Depart ment	\$26,0 00	Wi thi n 1 ye ar	Hig h	SIP	ES
2021- Lafayette- 003	Paulinskill Brook Flood Study	<b>Problem</b> : Paulinskill Brook causes flooding when water backs up at the Rt 15 bridge and backflows into the park and recreation area. This has led to repetitive losses. This also results in	Existing	Flood, Severe Storm	1, 2, 3, 4	Engineer	HMGP, BRIC, Township budget	Reduct ion in floodin g, address	TBD by flood study	Wi thi n 5	Hig h	SIP, NSP	SP, NR



## Section 9.14 – Township of Lafayette

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
		blocking the major state highway and shutting down travel for days, resulting in traffic diversion onto local roads. This shuts down access to businesses located in the center of town.						ing repetiti ve losses		ye ars			
		<b>Solution:</b> The Township will conduct a flood study of the area. It is assumed that the slope and drainage in this area needs significant improvements, but this is significantly impacted by the blockage at the Rt 15 bridge which results in backflow of rising water into the park. Once the flood study is complete and has identified cost effective improvements, the Township will carry out the identified mitigation measures.											
2021- Lafayette- 004	Portable Generators and Water Pumps	<ul> <li>Problem: Flooding of public areas, businesses, and resident homes requires Township assistance for response.</li> <li>Solution: The Township will procure additional smaller generators and water transfer pumps which can be located strategically to remove flood waters and allow for homes to remain occupied and roads to remain open.</li> </ul>	Existing	Flood, Severe Storm	2, 5	OEM, Public Works	Township budget	Increas ed capabil ity of	\$10,0 00	Wi thi 2 ye ars	Hig h	SIP	ES
2021- Lafayette- 005	Vacuum Truck for Stormwater Cleaning	<ul> <li>Problem: Traffic diversion caused by flooding and debris results in increased traffic on local roads, closed businesses, and displaced residents from homes</li> <li>Solution: The Township will purchase a vacuum truck and train staff to more efficiently and proactively clean out stormwater and catch basins throughout the year and prior to storm seasons.</li> </ul>	Existing	Flood, Severe Storm	2, 5	Public Works	Township budget	Storm water system kept functio nal	\$100, 000	Wi thi 5 ye ars	Hig h	SIP	SP
2021- Lafayette- 006	Equipment for Storm Debris Response	<b>Problem</b> : Timely cleanup and removal of debris following a storm over a period of several days can overwhelm internal DPW resources, both manpower and equipment. When the single piece of equipment fails during a storm event, the Township does not have the resources or equipment to respond.	N/A	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	5	Public Works	Township budget	Increas ed storm respon se capabil ities	\$100, 000	Wi thi 5 ye ars	Hig h	SIP	ES



## Section 9.14 – Township of Lafayette

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
		<b>Solution:</b> The Township will purchase the appropriately sized equipment to allow for cleanup of multiple locations such as large chippers to remove large sized branches and loaders to cleanup more areas simultaneously.											
2021- Lafayette-	Expanding Township	<b>Problem</b> : Budgetary constraints with hiring additional staff, procuring new equipment, or contracting 3rd party consultants to mitigate, monitor, or correct a hazard. The Township does not have subject matter expertise in house within municipality for mitigating a hazard or more detailed planning for the hazard.	Both	All	5	Administrat ion, OEM	Township	Increas ed capabil ities	Staff	Wi thi 2	Hig	LPR	PR
007	Capabilities	<b>Solution:</b> The Township will ensure pre event plans are in place which rely on mutual aid agreements with municipal and county agencies / departments. The Township will also work with stakeholders who have the subject matter expertise or equipment to assess, plan for, monitor, conduct training, and as needed respond.		Hazards		IOH, OEIVI	budget	for hazard respon se	time	2 ye ars	h		
2021- Lafayette- 008	Expanding Township Disease Outbreak Capabilities	Problem: The Township has limited capability to respond to disease outbreak events. Solution: The Township will ensure shared service agreements are in place for the resources needed to plan for the hazard, and the equipment, monitoring, PPE, etc. needed for the hazard.	N/A	Disease Outbreak	5	Administrat ion, OEM	Township budget	Increas ed capabil ities for disease outbrea k respon se	Staff time	Wi thi n 6 m on ths	Hig h	LPR	PR
2021- Lafayette- 009	DPW Upgrades	<ul> <li>Problem: The DPW facility requires eventual upgrades to protect continuity of operations and critical services.</li> <li>Solution: When it comes time to replace the roof of the Township DPW facility, current snow load standards will be incorporated into the design of the roof. Additional improvements include accessory building equipment building structural improvements, and sand/grit</li> </ul>	Existing	Hurricane, Nor'Easter , Severe Weather, Severe Winter Weather	2, 6	DPW	Township budget	Protect ion of critical service s	High	Wi thi 5 ye ars	Hig h	SIP	рр



#### Section 9.14 - Township of Lafayette

Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution storage building structural	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
		improvements.											
		<b>Problem:</b> The Township lacks a Disaster Debris Management Plan.						Increas ed					
2021- Lafayette- 010	Disaster Debris Management Plan	<b>Solution:</b> The Township will develop and adopt a Disaster Debris Management Plan.	N/A	All Hazards	5	DPW, OEM, Administrat ion	Township budget	capabil ity followi ng disaste r events	Staff time	1 ye ar	Hig h	LPR	ES

Flood Mitigation Assistance Grant Program

**Building Resilient Infrastructure and Communities** 

Hazard Mitigation Grant Program

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

#### 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.

Potential FEMA HMA Funding Sources:

FMA

BRIC

HMGP

- 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.



Time	lino
THIC	me

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.

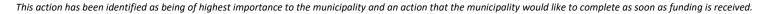
• Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.



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- Lafayette- 001	Municipal Building Backup Generator	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Lafayette- 002	Fire Department Backup Generator	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Lafayette- 003	Paulinskill Brook Flood Study	0	1	1	1	1	0	0	1	1	0	1	0	1	1	9	High
2021- Lafayette- 004	Portable Generators and Water Pumps	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Lafayette- 005	Vacuum Truck for Stormwater Cleaning	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2021- Lafayette- 006	Equipment for Storm Debris Response	1	1	1	1	1	1	1	1	1	1	1	0	1	1	13	High
2021- Lafayette- 007	Expanding Township Capabilities	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Lafayette- 008	Expanding Township Disease Outbreak Capabilities	1	0	1	1	1	1	1	0	1	1	0	1	1	1	11	High
2021- Lafayette- 009	DPW Upgrades	1	1	1	1	1	1	1	1	1	1	1	0	1	1	13	High
2021- Lafayette- 010	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High

Table 9.14-16. Summary of Evaluation and Action Priorities

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





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

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



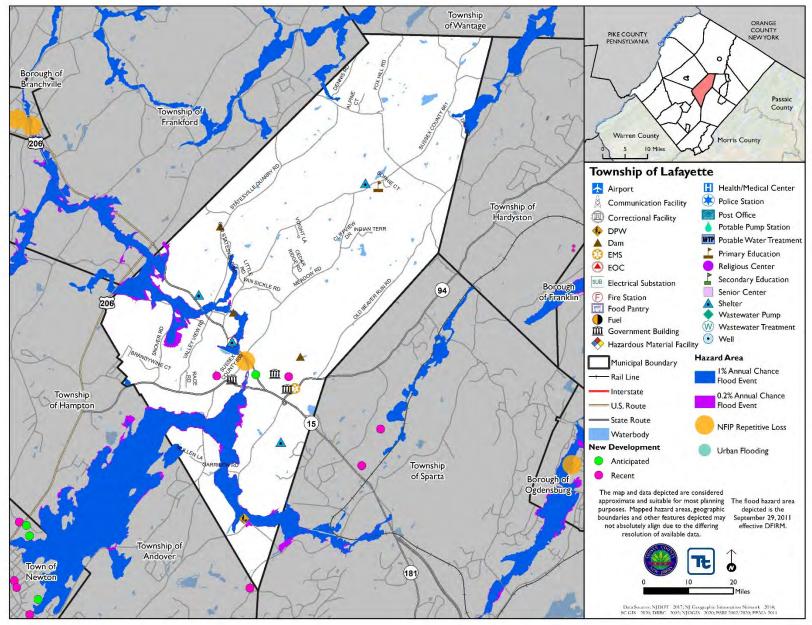


Figure 9.14-1. Township of Lafayette Hazard Area Extent and Location Map 1



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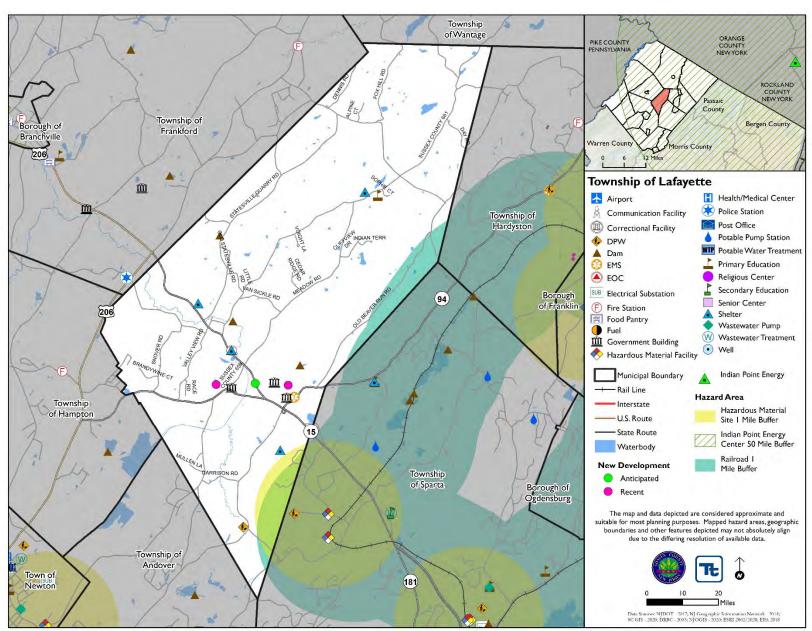
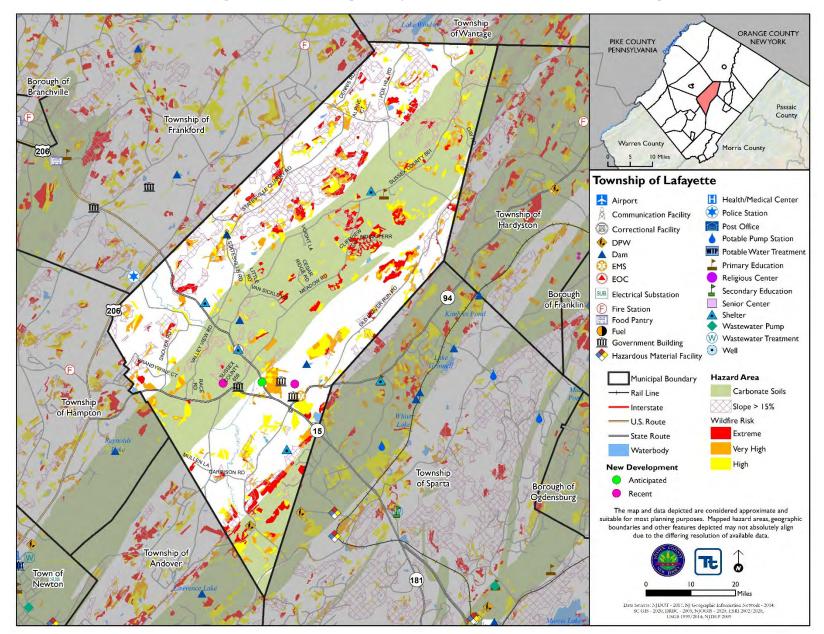


Figure 9.14-2. Township of Lafayette Hazard Area Extent and Location Map 2





#### Figure 9.14-3 Township of Lafayette Hazard Area Extent and Location Map 3



		Action V	Norks	heet							
Project Name:	Municipal Building E										
Project Number:	2020-Lafayette-001										
Risk / Vulnerability											
Hazard(s) of Concern:	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter										
Description of the Problem:	Municipal Building d seven days in the past with sized auto transf October 2019 but the complicated installati	Backup power sources are necessary to maintain critical services for critical facilities. Municipal Building does not have a generator and this area has been without power for over seven days in the past. The Township has researched and have proposals for 65kW generator with sized auto transfer switch. Natural gas was extended to the municipal building in October 2019 but the size of loads and location requires larger generator and more complicated installation resulting in higher costs									
Action or Project Intended			1 *			· · · · · · · · · · · · · · · · · · ·					
Description of the Solution:	The Township will pu	irchase a	and ins	tall a 65kW natural g	gas gene	erator with transfer switch.					
Is this project related to a	Critical Facility?	Yes	$\boxtimes$	No 🗌							
Level of Protection:	65kW			nated Benefits ses avoided):		Ensures continuity of operations of Municipal Building					
Useful Life:	20 years	20 years <b>Goals Met:</b> 1, 3									
Estimated Cost:	\$35,000		Mitig	gation Action Type		Structure and Infrastructure Projects (SIP)					
Plan for Implementation											
Prioritization:	High			red Timeframe for ementation:		Within 1 year					
Estimated Time Required for Project Implementation:	1 year			ntial Funding Sour	rces:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget					
Responsible	Engineer, Public Wor	:ks		l Planning Mechar Used in	nisms	Hazard Mitigation, Emergency Management					
Organization:			Impl	ementation if any							
Three Alternatives Conside	ered (including No A Action	ction)	F	stimated Cost		Evaluation					
	No Action		Ľ	\$0		Problem continues.					
Alternatives:	Install solar pane	ls		\$100,000	amo	eather dependent; need large ount of space for installation; xpensive 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:											
<b>Report of Progress:</b>											
Update Evaluation of the Problem and/or Solution:											

\_\_\_\_\_



	Action Worksheet										
Project Name:	Municipal Building Backup	Municipal Building Backup Generator									
Project Number:	2020-Lafayette-001										
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 building from power loss.									
Cost-Effectiveness	1										
Technical	1										
Political	1										
Legal	1	The Township has the legal authority to complete the project.									
Fiscal	0	Project requires funding support.									
Environmental	1										
Social	1										
Administrative	1										
Multi-Hazard	1	Severe Storm, Severe Winter Weather, Hurricane, Nor'Easter									
Timeline	1	Within 1 year									
Agency Champion	1	Engineer, Public Works									
Other Community Objectives	1										
Total	13										
Priority (High/Med/Low)	High										

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		Action V	Norks	sheet							
Project Name:	Fire Department Bac			meet							
	2020-Lafayette-002	1									
Project Number:	2020-Lalayette-002										
Risk / Vulnerability				1							
Hazard(s) of Concern:	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter										
Description of the Problem:	Fire Department doe This section of town researched and have propane fueled with	Backup power sources are necessary to maintain critical services for critical facilities. The Fire Department does not have a reliable and adequately sized emergency power generator. This section of town has been without power for more than 7 days. The Township has researched and have proposals for a 40kW generator with 400amp auto transfer switch, initial propane fueled with new tanks installed until natural gas is extended to Fire House building.									
Action or Project Intended				4-11 - 401-W/							
Description of the Solution:	initial propane fuele	d with ne ral gas is	w tank extenc	s installed until nature led to the Fire House	ral gas i	400amp auto transfer switch, s extended to Fire House ag, the Township will modify					
Is this project related to a	Critical Facility?	Yes	$\bowtie$	No 🗌							
Level of Protection:	40kW			nated Benefits ses avoided):		Ensures continuity of operations of Fire Department					
Useful Life:	20 years Goals Met:										
Estimated Cost:	\$26,000		Miti	gation Action Type	:	Structure and Infrastructure Projects (SIP)					
Plan for Implementation											
Prioritization:	High			red Timeframe for	r	Within 1 year					
Estimated Time Required for Project Implementation:	1 year			mplementation: Potential Funding Sources:		FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget					
Responsible Organization:	Engineer, Public Wo Fire Department	orks,	to be	ll Planning Mechar e Used in lementation if any		Hazard Mitigation, Emergency Management					
Three Alternatives Conside	ered (including No A	Action)_	mp			<u></u>					
	Action		E	stimated Cost		Evaluation					
	No Action			\$0		Problem continues.					
Alternatives:	Install solar pan	els		\$100,000	amo e:	eather dependent; need large ount of space for installation; xpensive if repairs needed					
	Install wind turbine \$100,000 Weather dependent; poses a threat to wildlife; expensive repairs if needed										
Progress Report (for plan i	naintenance)										
Date of Status Report:											
Report of Progress:											
Update Evaluation of the Problem and/or Solution:											





	Act	ion Worksheet								
Project Name:	Fire Department Backup G	Fire Department Backup Generator								
Project Number:	2020-Lafayette-002									
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate								
Life Safety	1	Project will protect critical services of Fire Department								
Property Protection	1	Project will protect building from power loss.								
Cost-Effectiveness	1									
Technical	1									
Political	1									
Legal	1	The Township has the legal authority to complete the project.								
Fiscal	0	Project requires funding support.								
Environmental	1									
Social	1									
Administrative	1									
Multi-Hazard	1	Severe Storm, Severe Winter Weather, Hurricane, Nor'Easter								
Timeline	1	Within 1 year								
Agency Champion	1	Engineer, Public Works, Fire Department								
Other Community Objectives	1									
Total	13									
Priority (High/Med/Low)	High									

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	А	ction W	orkshee	t							
Project Name:	Paulinskill Brook Flo	od Study									
Project Number:	2020-Lafayette-003										
	Ri	Risk / Vulnerability									
Hazard(s) of Concern:	Flood, Severe Storm	lood, Severe Storm									
Description of the Problem:	into the park and recre blocking the major sta diversion onto local re	aulinskill Brook causes flooding when water backs up at the Rt 15 bridge and backflows nto the park and recreation area. This has led to repetitive losses. This also results in locking the major state highway and shutting down travel for days, resulting in traffic iversion onto local roads. This shuts down access to businesses located in the center of town.									
	Action or Project										
Description of the Solution:	The Township will conduct a flood study of the area. It is assumed that the slope and drainage in this area needs significant improvements but this is significantly impacted by the blockage at the Rt 15 bridge which results in backflow of rising water into the park. Once the flood study is complete and has identified cost effective improvements, the Township will carry out the identified mitigation measures.										
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🛛							
Level of Protection:	TBD by flood study	•		ted Benefits avoided):	Reduction in flooding, addressing repetitive losses						
Useful Life:	TBD by flood study		Goals M								
Estimated Cost:	TBD by flood study		Mitigat	ion Action Type:	Structure and Infrastructure Projects, Natural Systems Protection						
	Plan	for Imp	lementa								
Prioritization:	High			l Timeframe for lentation:	Within 5 years						
Estimated Time Required for Project Implementation:	5 years		•	al Funding	HMGP, BRIC, Township budget						
Responsible Organization:	Engineer		Mechai in Impl	lanning nisms to be Used ementation if any:	Hazard mitigation planning, stormwater planning						
	Three Alternatives	6 Consid									
	Action		E	stimated Cost	Evaluation						
Alternatives:	No Action Deepen Paulinskill I	Brook		\$0 \$500,000	Current problem continues Costly and unlikely to solve problem						
	Remove Rt. 15 bridge N/A Not possible										
	Progress Re	port (fo	r plan ma	aintenance)							
Date of Status Report:											
Report of Progress:											
Update Evaluation of the Problem and/or Solution:		_	_								





	Acti	on Worksheet							
Project Name:	Paulinskill Brook Flood St	Paulinskill Brook Flood Study							
Project Number:	2020-Lafayette-003								
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate							
Life Safety	0								
Property Protection	1	Reduction in flooding risk							
Cost-Effectiveness	1								
Technical	1	Technically feasible project							
Political	1								
Legal	0	The project may require permitting.							
Fiscal	0	Project will require funding assistance.							
Environmental	1	Project will restore Paulinkskill Brook							
Social	1	Reduction in flooding, addressing repetitive losses							
Administrative	0								
Multi-Hazard	1	Flood, Severe Storm							
Timeline	0								
Agency Champion	1	Engineer							
Other Community Objectives	1	Address repetitive loss							
Total	9								
Priority (High/Med/Low)	High								



# 9.15 TOWNSHIP OF MONTAGUE

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

# 9.15.1 Hazard Mitigation Planning Team

The Township of Montague 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 9.15-1. Hazard Mitigation Planning Team

Primary Poin	nt of Contact		Alternate Point of Contact					
Name / Title: David Coss, OF Works Director Address: 277 Clove Road, M Phone Number: (908) 319-18 Email: coss1101@yahoo.com	ontague, NJ 07827 11	Name / Title: Eileen DeFabiis, Clerk Address: 277 Clove Road, Montague, NJ 07827 Phone Number: (973) 293-7300 Email: clerk@montaguenj.org						
NFIP Floodplain Administrator         Name / Title: Robert Huber, Construction Official/Plumbing Sub-Code Official         Address: 277 Clove Road Montague NJ 07827         Phone Number: (973) 293-3366         Email: construction@montaguenj.org								
Name	Title		Method of Participation					
David Coss	OEM Coordinator, Public W Director	orks	Primary point of contact, reviewed annex*					
Eileen DeFabiis	Clerk		Alternate point of contact; attended the annex trainings					
Robert Huber	Construction Official/Plumb Code Official	ing Sub-	NFIP floodplain administrator; attended the kickoff meeting, reviewed annex*					
Jesse Brace-Revak	Deputy Emergency Manager Coordinator	nent	Attended the annex training, risk assessment meeting and mitigation strategy workshop; provided data and information for the annex update, reviewed annex*					
Mayor Richard E. Innella	Mayor		Reviewed annex*					
Harold E. Pellow	Engineer, Land Use Planner		Reviewed annex*					
Sharon Yarosz	Fiscal/CFO		Reviewed annex*					
Ryan Riegel	Fire Department		Reviewed annex*					

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





# 9.15.2 Jurisdiction Profile

Montague Township is located in the northwest corner of Sussex County. It is bordered to the north by New York State, to the south by Frankford and Sandyston Townships, to the east by Wantage Township and to the west by Pennsylvania. The Township covers a total area of 43.9 square miles. The following unincorporated communities are located within the Township: Four Corners, Montague, Millville, and Duttonville. The Delaware River makes up the northern and western border between the Township and Pennsylvania. Big Flat Brook is a stream located in the southern end of the Township. There are many ponds and lakes located throughout the Township as well.

According to the U.S. Census, the 2010 population for the Township of Montague was 3,847. The estimated 2018 population was 3,716, a 3.4 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 3.7 percent of the population is 5 years of age or younger and 17.3 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.

## 9.15.3 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.

Type of Development	2	015	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		
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 # of Units / Development Structures				(addre	<b>cation</b> ss and/or and lot)	-	n Hazard ne(s)*	Description / Status of Development			
		Recent Ma	jor Deve	lopment an	d Infrast	ructure from	m 2015 to	o Present				
Emergency Services Radio Repeater Site	Comm	ercial	1		79 Deckertown Turnpike		Nuclear Incident Hazard Area		Recent			

## Table 9.15-2. Recent and Expected Future Development

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

# 9.15.4 Capability Assessment

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

		Authority that		been integra	ts of the HMP ated into your ances/plans?				
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.				
Codes, Ordinances, & Requirements									
Building Code	Yes	State & Local	Yes	Yes	-				
<ul> <li>State mandated on local level under NJA Adopted 9/3/2019</li> <li>This code follows State Uniform Constru-</li> </ul>		0		Edition, 2018, NJ	IAC 5:24-3.14				
Zoning Code	Yes	Local	municipality has a Planning Board	Yes	-				
Comment: • State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and m • The Land Use Department is responsibl	to have current zo aster plan.	ning and other land de	velopment ordin						
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-				
The governing body may by ordinance r the filing of such plats with the county re									

## Table 9.15-3. Planning, Legal and Regulatory Capability





				Have aspects of the been integrated into codes/ordinances/p	
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>or two dwelling-unit buildings shall be a of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this</li> <li>The Land Use Department is responsible</li> </ul>	the planning boar of this act . Dictat ounty planning bound for the approve section.	d whenever the board o ed by the Municipal Lai ard shall provide for th al of those subdivisions	f adjustment has nd Use Law. NJ ne review of all s affecting county	i jurisdiction over Statute 40:27-6.2 ubdivisions of lar	• a subdivision • - the board of ad within the
Stormwater Management	Yes	Local	Yes	Yes	-
Comment: • See Title 7 of the NJ Administrative Coa • The Township Committee is responsible		in compliance with Ch	apter 56.		
Post-Disaster Recovery	No	-	No	-	-
Comment:					
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-
<b>Comment:</b> N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Con improvements, fees for services and amenities, the and police, as well as any hazards, risks or nuisand	nmission. The POS type of title and ow	S provides information s mership interest being o	such as estimated	d completion date	es for
Growth Management	No	-	Yes – if municipality has a Planning Board	-	-
State Mandated on a municipal level. See Redevelopment Plan provides for the de of state environmental regulations make Site Plan Review	lineation of Growt	h Areas and Environs;	Use of the endor	sed plans in the i	
	105	Local	Planning Board	105	
Comment: Dictated by the Municipal Land Use Latres review. NJ Statute 40:27-6.2: The boards review of all subdivisions of land within affecting county road or drainage facility planning boards shall have a complete f municipal clerk shall file with the count on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or public given to the county planning board at let a copy of the official notice of the public	l of commissioners the county by said ties as set forth an ile of the planning y planning board a notify the county djoining county ra ic lands shown on ast 10 days prior t hearing together	of any county having a county planning board d limited hereinafter in and zoning ordinances copy of the planning a planning board of the in oads or other county lan the county master plan o the public hearing the with a copy of the propo	county planning d and for the app this section. 40 of all municipal nd zoning ordinu- ntroduction of a dos, or lands lyin o or official count ereon by persona osed ordinance.	g board shall pro proval of those su :27-6.10 In order lities in the county ances of the muni ny revision or am ng within 200 feet ty map. Such not	wide for the bdivisions that county e, each cipality in effed endment of t of a municipa tice shall be
The Land Use Department is responsibl Environmental Protection	No	ments in compliance wi	No	_	_
Comment:	110		110		
Flood Damage Prevention	Yes	State & Local	Yes	Yes	2021- Montague-00
Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of J floodplain ordinances of each municipa the NFIP requires a floodplain ordinance effective June 20, 2016.	lood losses. They lity must be review	do not require local advect de local advector de local advector de local advector de local advector de local adv	option but as enj these regulation	forced by the NJL is. In addition, po	) are state and DEP, the articipation in

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		Authority that		been integra	ts of the HMP ated into your ances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Chapter 38 Flood Damage Prevention i.	s administered by 1	he NFIP Floodplain Ad	lministrator, des	signated as the To	ownship	
<ul> <li>Engineer.</li> <li>It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to: <ul> <li>A. Protect human life and health;</li> <li>B. Minimize expenditure of public money for costly flood control projects;</li> <li>C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;</li> <li>D. Minimize prolonged business interruptions;</li> <li>E. Minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;</li> <li>F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;</li> <li>G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and</li> <li>H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</li> </ul> </li> </ul>						
Wellhead Protection	No	-	No	-	-	
Comment:				1		
Emergency Management	Yes	Local and County	No	No	No	
Comment: • Chapter 37 Fire Prevention						
Climate Change	No	-	No	-	-	
Comment:	1					
Disaster Recovery Ordinance No - No -						
Comment:				I.		
Disaster Reconstruction Ordinance No - No						
Comment:				I.		
Other:	No	-	No	-	-	
Comment:						
Planning Documents						
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-	
Comment: <ul> <li>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.</li> </ul> <li>The Land Use Department is responsible for this plan. The plan was adopted after re-examination on December 8, 2011.</li> <li>Capital Improvement Plan</li> <li>Yes</li>						
<i>Comment:</i> • The Township Committee is responsible for this plan. Adopted Budget 4/14/2015.						
Disaster Debris Management Plan	No	- -	No	-	2021- Montague-004	





Comment: Floodplain or Watershed Plan Comment: Stormwater Management Plan Comment: • The Stormwater Management rules (N.J.A.G the required components of regional and m design and performance standards for new include groundwater recharge, runoff quan consideration, the use of nonstructural stor- impervious surfaces, minimizing the use of in requirements for groundwater recharge, sto- of major development to be located within or without prior authorization from the Depar Stormwater Pollution Prevention Plan Comment: • The Phase II New Jersey Pollutant Dischar 7:14A) were published in the February 2, 2 associated with existing stormwater runoff. as required under the Federal Clean Water operate small municipal separate storm sev municipalities, certain public complexes su or maintain highways. The permit program nonpoint source pollutant loads from these ordinances (litter control, pet waste, wildliff management plan and implementing ordinand basin cleaning); implementing solids and fl education component. Curban Water Management Plan Comment: Habitat Conservation Plan	nunicipal storm (proposed) dev ntity controls, a mwater manag stormwater runoj or to discharge tment under th No rge Elimination 2004, NJ Regist The NJPDES of e Act. These NJ wer systems, kn uch as universith e stablishes the sources. The S fe feeding, prop ance(s); requiri	water management plan velopment. The design a nd runoff quality contro ement techniques inclue es, preserving natural a ff quantity control, storr runoff from the major a e Flood Hazard Area C system Stormwater Reg er. These NJPDES rules rules establish a regulai PDES rules govern the own as MS4s. Under th ies and hospitals, and S e Statewide Basic Require tatewide Basic Require er waste disposal, etc.) ng certain maintenance	as and establish t and performance ols. The rules emp ding minimizing of trainage features mwater runoff qu development into ontrol Act Rules, Yes gulation Program s are intended to tory program for issuance of perm tate, interstate an rements that mus ments include me ; the development activities (such	If yes- how? Describe in comments. - Yes U Register. These the stormwater mu- standards for new phasize, as a prim disturbance, minu s, etc. The rules a disturbance, minu a 300-foot ripar. , N.J.A.C. 7:13. - m (NJPDES) rule o address and redu- e existing stormwork its to entities tha nits must be secur not federal agenci st be implemented easures such as: t int of a municipal.	anagement w development nary mizing ilso set forth l the prohibition ian zone - s (N.J.A.C. uce pollutants ter discharges t own or red by es that operate l to reduce the adoption of stormwater
Floodplain or Watershed Plan         Comment:         Stormwater Management Plan         Comment:         • The Stormwater Management rules (N.J.A.4 the required components of regional and m design and performance standards for new include groundwater recharge, runoff quan consideration, the use of nonstructural stor. impervious surfaces, minimizing the use of requirements for groundwater recharge, sto of major development to be located within of without prior authorization from the Depar         Stormwater Pollution Prevention Plan         Comment:         • The Phase II New Jersey Pollutant Dischar 7:14A) were published in the February 2, 2 associated with existing stormwater runoff: as required under the Federal Clean Water operate small municipal separate storm sev municipalities, certain public complexes su or maintain highways. The permit program nonpoint source pollutant loads from these ordinances (litter control, pet waste, wildlif management plan and implementing ordina basin cleaning); implementing solids and fl education component.         Urban Water Management Plan	No C. 7:8) rules wi unicipal storm (proposed) dev tity controls, a mwater manag stormwater pip ornwater runo, or to discharge etment under the No rge Elimination 2004, NJ Regist The NJPDES Act. These NJ wer systems, kn ich as universith e stablishes the sources. The S fe feeding, prop ance(s); requiri	ere published in the Fel water management plan velopment. The design a nd runoff quality control ement techniques includ es, preserving natural a of quantity control, storr runoff from the major a e Flood Hazard Area C - System Stormwater Rea er. These NJPDES rules rules establish a regulat PDES rules govern the own as MS4s. Under th ises and hospitals, and S o Statewide Basic Required tatewide Basic Required rer waste disposal, etc.) ng certain maintenance	Yes bruary 2, 2004 N as and establish t ind performance bls. The rules emp ding minimizing d drainage features nwater runoff qu development into control Act Rules, Yes gulation Program s are intended to tory program for issuance of perm is program, pern tate, interstate au rements that mus ments include me ; the development activities (such	Yes U Register. These the stormwater me standards for ner phasize, as a prin disturbance, mini s, etc. The rules a uality control, and o a 300-foot ripar, N.J.A.C. 7:13. - m (NJPDES) rule o address and redu- existing stormwa nits to entities tha nits must be secun nd federal agenci st be implemented easures such as: to nt of a municipal.	- 
Comment: Stormwater Management Plan Comment: • The Stormwater Management rules (N.J.A.4 the required components of regional and m design and performance standards for new include groundwater recharge, runoff quan consideration, the use of nonstructural stor- impervious surfaces, minimizing the use of requirements for groundwater recharge, sto of major development to be located within o without prior authorization from the Depar Stormwater Pollution Prevention Plan Comment: • The Phase II New Jersey Pollutant Dischar 7:14A) were published in the February 2, 2 associated with existing stormwater runoff. as required under the Federal Clean Water operate small municipal separate storm sew municipalities, certain public complexes su or maintain highways. The permit program nonpoint source pollutant loads from these ordinances (litter control, pet waste, wildliff management plan and implementing ordinal basin cleaning); implementing solids and fl education component. Comment:	No C. 7:8) rules wi unicipal storm (proposed) dev tity controls, a mwater manag stormwater pip ornwater runo, or to discharge etment under the No rge Elimination 2004, NJ Regist The NJPDES Act. These NJ wer systems, kn ich as universith e stablishes the sources. The S fe feeding, prop ance(s); requiri	ere published in the Fel water management plan velopment. The design a nd runoff quality control ement techniques includ es, preserving natural a of quantity control, storr runoff from the major a e Flood Hazard Area C - System Stormwater Rea er. These NJPDES rules rules establish a regulat PDES rules govern the own as MS4s. Under th ises and hospitals, and S o Statewide Basic Required tatewide Basic Required rer waste disposal, etc.) ng certain maintenance	Yes bruary 2, 2004 N as and establish t ind performance bls. The rules emp ding minimizing d drainage features nwater runoff qu development into control Act Rules, Yes gulation Program s are intended to tory program for issuance of perm is program, pern tate, interstate au rements that mus ments include me ; the development activities (such	Yes U Register. These the stormwater me standards for ner phasize, as a prin disturbance, mini s, etc. The rules a uality control, and o a 300-foot ripar, N.J.A.C. 7:13. - m (NJPDES) rule o address and redu- existing stormwa nits to entities tha nits must be secun nd federal agenci st be implemented easures such as: to nt of a municipal.	- 
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<ul> <li>The Stormwater Management rules (N.J.A.G. the required components of regional and m design and performance standards for new include groundwater recharge, runoff quan consideration, the use of nonstructural stor impervious surfaces, minimizing the use of requirements for groundwater recharge, sto of major development to be located within o without prior authorization from the Depar Stormwater Pollution Prevention Plan</li> <li>The Phase II New Jersey Pollutant Dischart 7:14.4) were published in the February 2, 2 associated with existing stormwater runoff. as required under the Federal Clean Water operate small municipal separate storm sew municipalities, certain public complexes su or maintain highways. The permit program nonpoint source pollutant loads from these ordinances (litter control, pet waste, wildlif management plan and implementing ordina basin cleaning); implementing solids and fl education component.</li> <li>Comment:</li> </ul>	nunicipal storm (proposed) dev ntity controls, a mwater manag stormwater runoj or to discharge tment under th No rge Elimination 2004, NJ Regist The NJPDES of e Act. These NJ wer systems, kn uch as universith e stablishes the sources. The S fe feeding, prop ance(s); requiri	water management plan velopment. The design a nd runoff quality contro ement techniques inclue es, preserving natural a ff quantity control, storr runoff from the major a e Flood Hazard Area C system Stormwater Reg er. These NJPDES rules rules establish a regulai PDES rules govern the own as MS4s. Under th ies and hospitals, and S e Statewide Basic Require tatewide Basic Require er waste disposal, etc.) ng certain maintenance	as and establish t and performance ols. The rules emp ding minimizing of trainage features mwater runoff qu development into ontrol Act Rules, Yes gulation Program s are intended to tory program for issuance of perm tate, interstate an rements that mus ments include me ; the development activities (such	the stormwater must standards for new phasize, as a prim disturbance, mini s, etc. The rules a tality control, and o a 300-foot ripar, , N.J.A.C. 7:13. - m (NJPDES) rule o address and redu- e existing stormwork its to entities tha nits must be secur nd federal agenci st be implemented easures such as: t int of a municipal.	anagement w development hary mizing ilso set forth l the prohibition ian zone - s (N.J.A.C. uce pollutants ter discharges t own or red by es that operate l to reduce the adoption of stormwater
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Urban Water Management Plan		n, iocuing aiscnurge p	oints and stencil		
	No	-	No	-	-
Habitat Conservation Plan		•			
	Yes	Local	No	Yes	-
Comment:					
Economic Development Plan	No	-	No	-	-
Comment:					
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment: • NJ Coastal Area Facility Review Act (N.J.S including construction, relocation, and enla structures, and site preparation. This law i	argement of bu	ildings or structures, an	d excavation, gr	ading, shore prot	ection
Community Wildfire Protection Plan	Yes	State	No	No	-
Comment:					
Community Forest Management Plan	Yes	Local	No	Yes	-
Comment:					
Transportation Plan	No	-	No	-	-
Comment:					
Agriculture Plan	Yes	Local	No	Yes	-



		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Climate Action Plan	No	-	No	-	-	
Comment:						
Tourism Plan	No	-	No	-	-	
Comment:						
Business Development Plan	Yes	Local	No	Yes	-	
Comment:						
Other	No	-	No	-	-	
Comment:						
Response/Recovery Planning						
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	County & Local	Yes	Yes	-	
<ul> <li>Each county and municipality in the Stat necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State</li> <li>The Township OEM is responsible for the</li> </ul>	Emergency Operation of the construction of the	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2	ted no later than ncy Managemen 222, s.19.	one year after that and shall be even	ne State	
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Local	No	Yes	-	
Comment:						
Post-Disaster Recovery Plan	Yes	Local	No	Yes	-	
Comment:		-				
Continuity of Operations Plan	No	-	No	-	-	
Comment:				-		
Public Health Plan	Yes	County and Local	No	Yes	-	
Comment:						
Other	No	-	No	-	-	
Comment:				-		

## Table 9.15-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Construction Department
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

## **ADMINISTRATIVE AND TECHNICAL CAPABILITY**

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





Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability	Available.	Department/Agency/Fosition
Planning Board	Yes	Land Use Board
Mitigation Planning Committee	No	-
Environmental Board / Commission	No	
Open Space Board / Committee	No	
Economic Development Commission / Committee	Yes	Economic Development Committee
Warning Systems / Services (mass notification system, outdoor warning signals)	Yes	Fire/OEM
Maintenance program to reduce risk	No	-
Mutual aid agreements	Yes	Fire/DPW
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Harold E. Pellow & Associates
Engineers or professionals trained in building or infrastructure construction practices	No	-
Planners or engineers with an understanding of natural hazards	No	-
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	-
Stormwater engineer	Yes	Engineer
Personnel skilled or trained in GIS applications	No	-
Local or state water quality professional	Yes	-
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	OEM
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	No	-
Resilience Officer	No	-

## Table 9.15-5. Administrative and Technical Capabilities

## FISCAL CAPABILITY

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

### Table 9.15-6. 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	No
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No





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

### EDUCATION AND OUTREACH CAPABILITY

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

## Table 9.15-7. 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?	No
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	No
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.	No

## **COMMUNITY CLASSIFICATIONS**

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

## Table 9.15-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	Unavailable	Unavailable
Public Protection (Fire ISO Protection Class)	Yes	6/9	Being Reviewed
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.



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

## Table 9.15-9. Adaptive Capacity

Notes:

Strong = Capacity exists and is in use; Moderate = Capacity may exist, but is not used or could use some improvement;

Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

## NATIONAL FLOOD INSURANCE PROGRAM

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

## Table 9.15-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Construction
Who is your floodplain administrator? (name, department/position)	Robert Huber, Construction Official
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	September 13, 2011
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets minimum requirements.
When was the most recent Community Assistance Visit or Community Assistance Contact?	None
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?	No
Does your jurisdiction participate in the Community Rating System (CRS)?	No





Criterion	Response
-If yes, is your jurisdiction interested in improving its CRS Classification? -If no, is your jurisdiction interested in joining the CRS program?	
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	19 policies \$4,859,000 insurance in force \$21,759 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	17 claims \$178,248 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

\* According to FEMA statistics as of October 13, 2020 FEMA 2020

Reference:

## 9.15.5 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 Montague'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.

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 <sup>rd</sup> and 24th.	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 closures and mask/social distancing requirements and reported \$2,211.84 in losses.

## Table 9.15-11. Hazard Event History

Source: FEMA 2020, NOAA NCEI 2020

## 9.15.6 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 Montague 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 Montague 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 Montague has significant exposure.

## **REPETITIVE FLOOD LOSSES**

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

- Number of repetitive loss (RL) properties: 2
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

Source: FEMA 2019 Note: The number of SRL properties excludes RL properties.

## **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.

		Exposure				
Name	Туре	1% Event	0.2% Event			
21-56 Clove Lake Dam	Dam	Х	Х			
21-65 Hainesville WMA Dam	Dam	Х	Х			
22-170 Biccum Dam	Dam	Х	Х			
22-198 No Name #62 Dam	Dam	Х	Х			

## Table 9.15-12. Critical Facilities and Lifelines Flood Exposure

Source: Sussex County Planning Partnership 2020

## **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- The new fire house/community center/shelter, located at 274 Clover Road, is a lifeline for the Township and provides essential services to the municipality and its residents. It currently does not have a backup generator to provide continuity of operations during a power outage and serve as a shelter to the community.
- The Montague Township Elementary School at 475 Route 206 lacks a backup power source.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 2 repetitive loss properties but other properties may be impacted by flooding as well.
- The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.
- The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meeting New Jersey's minimum requirement.
- It is unknown if the windows of the town hall building located at 277 Clover Road are impact resistant.
- Montague Township is located within the northwest corner of the State and sits along the Delaware River. Several state and national parks are located within the Township, providing acres of forested land. This creates an increased risk of wildfires to residents who border the forested areas.





 Montague Township is located within the northwest corner of the State and sits along the Delaware River. Properties located along the river are susceptible to flooding and damages.

## 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 Montague 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 Montague. The Township of Montague 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 Montague agreed with the calculated hazard rankings.

Dam Failure	Disease Outbrea	ak Drought	ught Earthquake			Flood	Geologic
Medium	Medium	Medium	Low	Low		Medium	Low
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter	Sev Nor'Easter Wea		Severe Winter Weather	Wildfire
Medium	High	Low	High	Hi	gh	High	Medium

### Table 9.15-13. Township of Montague Hazard Ranking

## 9.15.7 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 9.15-14. Status of Previous HMP Mitigation Actions

2016	Action Number Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	the 2021 HMP odate? Enter 2021 HMP Action #
Montague         Retrofit roof to current           1 (old #2)         Montague Fire Department		Station Commander	Completed – new building	





			Status (In Progress, No		the 2021 HMP odate?
2016	Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
	building located on Clove Road.				
Montague- 2 (old #3)	Retrofit roof to current standards for high winds on Montague Fire Department building located on Clove Road.	Station Commander	Completed – new building		
Montague- 3 (old #4)	Retrofit roof to current standards for high winds on Montague Elementary School (shelter) located on Route 206.	School Board Administrator	Completed		
Montague- 4 (old #6)	Ensure continuity of operations at critical facilities. Identified at this time: Backup generator for Montague Elementary School (shelter) located on Route 206.	OEM Coordinator	No Progress	x	2021- Montague-002
Montague- 5 (old #9)	Retrofit municipal building with impact resistant windows and shutters located on Clove Road.	Municipal Engineer	No Progress	x	2021- Montague-006
Montague- 6 (old #10)	Work with the New Jersey Forest Fire Service to implement the FireWise program for the Township	OEM Coordinator	No Progress	x	2021- Montague-007
Montague- 7 (old #11)	The Township will add three warning systems along flood areas on River Road. This will help better warn the Township in the event of flooding.	OEM Coordinator	Ongoing Capability		
Montague- 8 (old #12)	Conduct a study along the river banks of the Delaware and Benekill Rivers to identify areas that need to be elevated to reduce flooding impacts.	Township Engineer	No Progress	Х	2021- Montague-008
Montague- 9 (old #13)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	OEM Coordinator, in coordination with SCDEM	Ongoing Capability		
Montague- 10 (new)	Review the current hazard mitigation plan prior to updating land use, zoning changes, or development permitting.	Township	Ongoing Capability		
Montague- 11 (new)	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood- proofing) or acquisition/relocation to protect structures from future damage, with repetitive loss and severe repetitive loss	Engineering via NFIP FPA with NJOEM, FEMA support	No Progress	X	2021- Montague-003

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		Status (In Progress, No	Include in the 2021 HMF Update?				
2016 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #			
properties as a priority when applicable.Phase 1: Identify appropriate candidates and determine mo cost-effective mitigation option.Phase 2: Work with the property owners to implement selected action based on available funding and local match availability.	t						

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

• The Township is in the process of building a new fire house, Community center with an emergency shelter

## **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Township of Montague 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 Montague 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 Montague 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.



Table 9.15-15	<b>Proposed Hazard</b>	<b>Mitigation Initiatives</b>
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Initiativ e Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existin g Assets ?	Hazard(s ) to be Mitigate d	Goal s Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2021- Montagu e-001	Backup Generator for Fire House/ Communit y Center / Shelter	<ul> <li>Problem: The new fire house/community center/shelter, located at 274 Clover Road, is a lifeline for the Township and provides essential services to the municipality and its residents. It currently does not have a backup generator to provide continuity of operations during a power outage and serve as a shelter to the community.</li> <li>Solution: Working with the Township Engineer, determine the</li> </ul>	Existing	Severe Weather, Severe Winter Weather, Hurricane , Nor'Easte	1, 2, 6	Engineer, Township OEM, Administratio n	FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc	Continuity of operations; shelter for residents during an emergency	\$100,000 +	Withi n 2 years	High	SIP	E S
		rownship Engineer, determine the proper type and size of generator for the facility. Once determined, obtain funding and purchase generator. Once purchased, install generator.		r			e Grants (EMPG) Program, Municipal Budget						
	Backup Generator for Elementary School	<b>Problem</b> : The Montague Township Elementary School at 475 Route 206 lacks a backup power source.					FEMA HMGP and BRIC, USDA						
2021- Montagu e-002		<b>Solution:</b> The Engineer will research what size generator is needed to power the Montague Township Elementary School. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Montague Township Elementary School.	Existing	Severe Weather, Severe Winter Weather, Hurricane , Nor'Easte r	1, 2, 6	Engineer, Township OEM, Administratio n, School Board	Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Municipal Budget	Ensures continuity of operations of Montague Township Elementary School	\$75,000	Withi n 5 years	High	SIP	E S
2021- Montagu e-003	Repetitive Loss Properties	<b>Problem</b> : Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 2 repetitive loss properties but other	Existing	Flood, Severe Weather	1, 2, 3	FPA, Homeowners	FEMA HMGP and FMA, local cost share by residents	Eliminates flood damage to homes and residents, creates open space	\$500,000	3 years	High	SIP	РР







Initiativ e Number	Mitigation Initiative Name	Description of the Problem and Solution properties may be impacted by	New or Existin g Assets ?	Hazard(s ) to be Mitigate d	Goal s Met	Lead and Support Agencies	Potential Funding Sources	benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		flooding as well. <b>Solution:</b> Conduct outreach to 10 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/eleva ting residential homes in the flood prone areas that experience frequent flooding (high risk areas).						municipalit y increasing flood storage.					
2021- Montagu e-004	Develop Debris Manageme nt Plan	<ul> <li>Problem: The Township currently does not have an adopted debris management plan. Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.</li> <li>Solution: The Township will develop a debris management plan that will assist the municipality when they need to facilitate response and recovery after a debris-causing incident. The plan will provide direction to facilitate and coordinate the management of debris following a disaster.</li> </ul>	Existing	All hazards	3, 5, 6	OEM, Public Works	Township budget	Increased disaster capability and preparedne ss	Staff time	1 year	High	LPR	E S
2021- Montagu e-005	Update Flood Damage Prevention Ordinance	<ul> <li>Problem: The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meeting New Jersey's minimum requirement.</li> <li>Solution: The Township will update its flood damage prevention ordinance to meet the New Jersey</li> </ul>	New and Existing	Flood	1, 2	Township Administratio n, Engineer	Township budget, FEMA BRIC	Meet state standards, reduce future flood risk	Staff time	6 month s	High	LPR	P R



## Section 9.15 – Township of Montague

Initiativ e Number	Mitigation Initiative Name	Description of the Problem and Solution requirement of one foot of freeboard.	New or Existin g Assets ?	Hazard(s ) to be Mitigate d	Goal s Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2021- Montagu e-006	Impact Resistant Windows and Shutters for Town Hall	Problem: It is unknown if the windows of the Town Hall building located at 277 Clover Road are impact resistant. Solution: The Township will conduct a study to determine whether or not the windows of town hall are impact resistant. If not, the Township will retrofit municipal building with impact resistant windows and shutters.	Existing	Hurricane , Nor'Easte r, Severe Weather, Severe Winter Weather	2, 6	OEM, Public Works	HMGP, BRIC, USDA Communit y Facilities Grant Program, Township budget	Reduction in risk of roof failure and protection of critical services	High	3 years	High	SIP	РР
2021-		<b>Problem</b> : Montague Township is located within the northwest corner of the State and sits along the Delaware River. Several state and national parks are located within the Township, providing acres of forested land. This creates an increased risk of wildfires to residents who border the forested areas.	New			Township	T L	Increase wildfire awareness,		Withi		LPR	PI
Montagu e-007	Firewise	<b>Solution:</b> The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The Township will also create an education program and set up town hall meetings.	and Existing	Wildfire	1, 2, 3	Administratio n, Fire Department	Township budget	provide grant opportuniti es for Township	<\$20,000	n 4 years	Mediu m	, EAP	, E S
2021- Montagu e-008	Delaware River Study	<b>Problem</b> : Montague Township is located within the northwest corner of the State and sits along the Delaware River. Properties located along the river are susceptible to flooding and damages. <b>Solution:</b> Conduct a study along the riverbanks of the Delaware	Existing	Flood	1, 2, 4	Engineer	HMGP, BRIC, municipal budget	Reduction in flood risk in selected areas	TBD by flood study	Withi n 5 years	High	LPR , SIP	РР





#### Section 9.15 – Township of Montague

Initiativ e Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existin g Assets ?	Hazard(s ) to be Mitigate d	Goal s Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		River to identify areas that need to be elevated to reduce flooding impacts. Once identified, cost- effective actions will be carried out.											

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:

FMAFlood Mitigation Assistance Grant ProgramHMGPHazard Mitigation Grant Program

BRIC Building Resilient Infrastructure and Communities
Program

### Timeline:

The time required for completion of the project upon implementation

<u>Cost:</u>

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.





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- Montague- 001	Backup Generator for Fire House/ Community Center / Shelter	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Montague- 002	Backup Generator for Elementary School	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Montague- 003	Repetitive Loss Properties	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2021- Montague- 004	Develop Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021- Montague- 005	Update Flood Damage Prevention Ordinance	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2021- Montague- 006	Impact Resistant Windows and Shutters for Town Hall	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Montague- 007	Firewise	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High
2021- Montague- 008	Delaware River Study	0	1	0	1	1	1	0	1	1	0	1	0	1	1	9	High

Table 9.15-16. Summary of Evaluation and Action Priorities

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.





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

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

high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



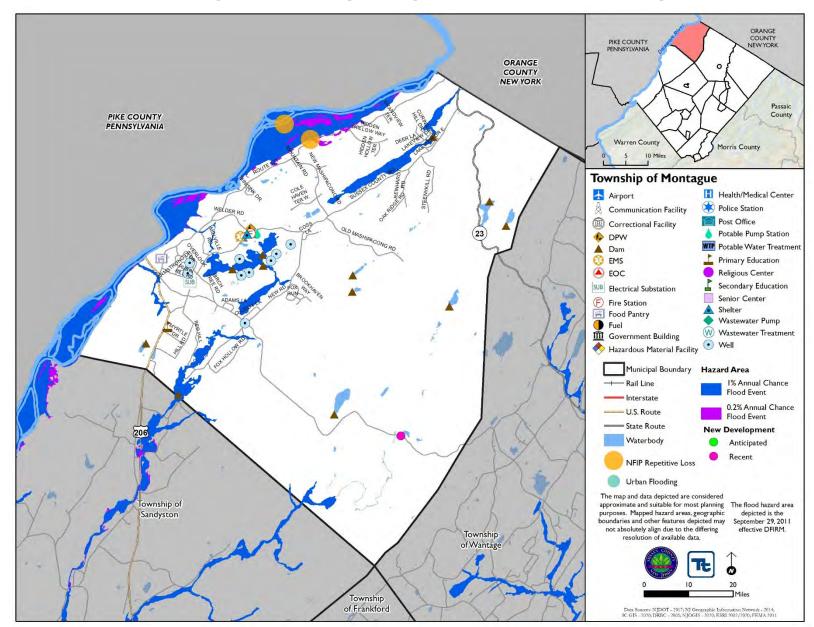


Figure 9.15-1. Township of Montague Hazard Area Extent and Location Map 1



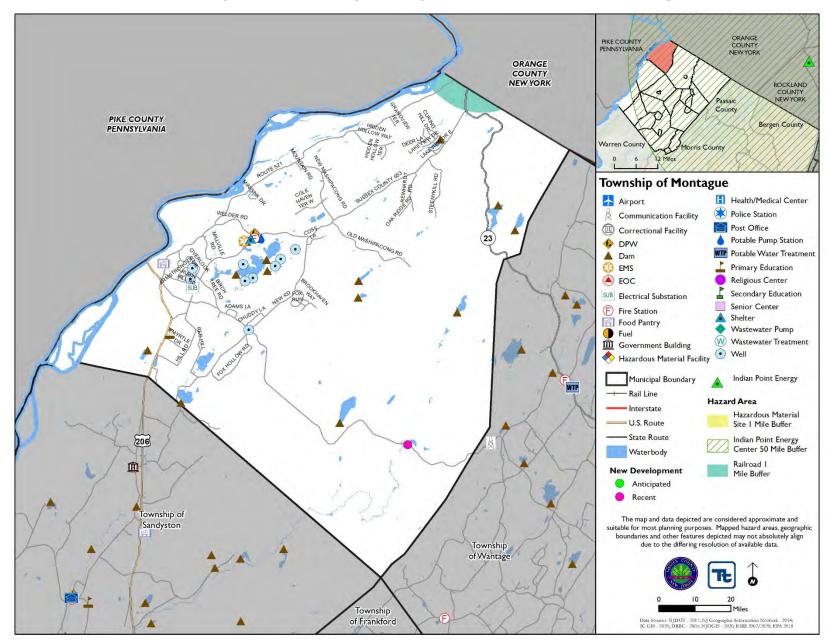


Figure 9.15-2. Township of Montague Hazard Area Extent and Location Map 2

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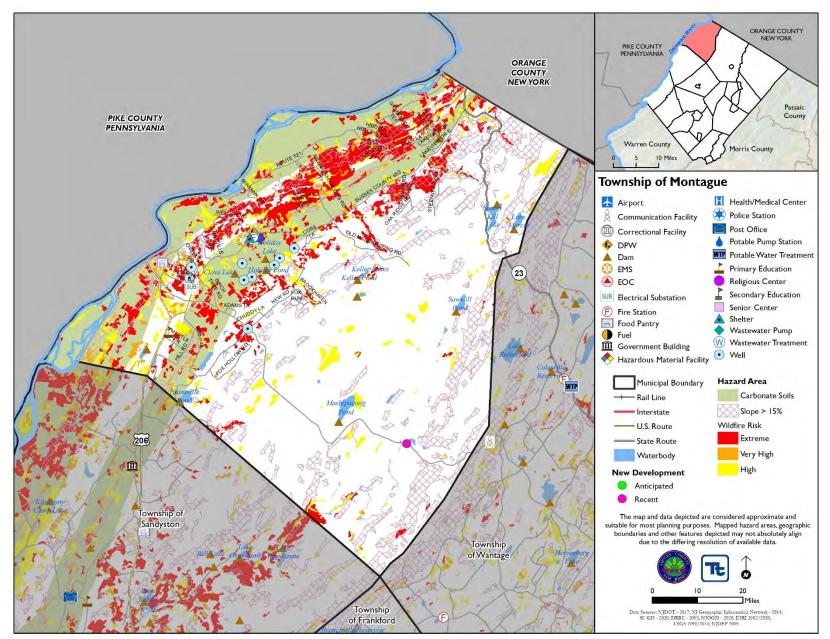


Figure 9.14-3 Township of Montague Hazard Area Extent and Location Map 3



	Ac	ction V	Vorks	heet						
Project Name:	Backup Generator for Fire House/ Community Center / Shelter									
Project Number:										
Risk / Vulnerability										
Hazard(s) of Concern:	Hazard(s) of Concern:         Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter									
Description of the Problem:	oblem:         does not have a backup generator to provide continuity of operations during a power outage and serve as a shelter to the community.									
Action or Project Intended for Implementation										
<b>Description of the</b> <b>olution:</b> Working with the Township Engineer, determine the proper type and size of generator for the facility. Once determined, obtain funding and purchase generator. Once purchased, install generator.										
Is this project related to a	Critical Facility? Y	'es	$\boxtimes$	No 🗌						
Level of Protection:	N/A		nated Benefits ses avoided):	Continuity of operations; shelter for residents during an emergency						
Useful Life:	20 years	Goal	s Met:		1, 2, 6					
Estimated Cost:	\$100,000+		Miti	gation Action Type	Structure and Infrastructure Projects (SIP)					
Plan for Implementation										
Prioritization:	High		red Timeframe for ementation:	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, Municipal Budget					
Responsible Organization:				l Planning Mechar e Used in ementation if any:	5 Hazard Mitigation, Emergency Management					
Three Alternatives Conside	ered (including No Act	ion)		,						
	Action		E	stimated Cost		Evaluation				
Alternatives:	No Action Install solar panels		\$0 \$100,000	Problem continues. 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 i	naintenance)									
Date of Status Report:										
Report of Progress:										
Update Evaluation of the Problem and/or Solution:										





Action Worksheet						
Project Name:	Backup Generator for Fire House/ Community Center / Shelter					
Project Number:	2021-Montague-001					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1	Project will protect critical services of Montague Township Elementary School				
Property Protection	1	Project will protect building from power loss.				
Cost-Effectiveness	1					
Technical	1					
Political	1					
Legal	1	The Township 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	Engineer, Township OEM, Administration				
Other Community Objectives	1					
Total	12					
Priority (High/Med/Low)	High					



	Action	Worksheet							
Project Name:		Backup Generator for Elementary School							
Project Number:	2021-Montague-002	2021-Montague-002							
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 Montague Township Elementary School at 475 Route 206 lacks a backup power source.								
Action or Project Intended									
Description of the Solution:	Elementary School. The Tow	The Engineer will research what size generator is needed to power the Montague Township Elementary School. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Montague Township							
Is this project related to a	Critical Facility? Yes	No 🗌							
Level of Protection:	N/A	N/A <b>Estimated Benefits</b> (losses avoided):							
Useful Life:	20 years	Goals Met:		1, 3					
Estimated Cost:	\$75,000	Mitigation Action Type	e:	Structure and Infrastructure Projects (SIP)					
Plan for Implementation									
Prioritization:	High	Desired Timeframe fo Implementation:	r	Within 5 years					
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sou	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget						
Responsible Organization:	Engineer, Township OEM, Administration, School Board	Local Planning Mechar to be Used in Implementation if any		Hazard Mitigation, Emergency Management					
Three Alternatives Conside		implementation if ally	•						
	Action	Estimated Cost		Evaluation					
	No Action	\$0		Problem continues.					
Alternatives:	Install solar panels	Install solar panels \$100,000 Weather dependent; need amount of space for install expensive if repairs nee							
	Install wind turbine	\$100,000	Weather dependent; poses a threat to wildlife; expensive repairs if needed						
Progress Report (for plan r	naintenance)								
Date of Status Report:									
Report of Progress:									
Update Evaluation of the Problem and/or Solution:									





Action Worksheet						
Project Name:	Backup Generator for Elementary School					
Project Number:	2021-Montague-002					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1	Project will protect critical services of Montague Township Elementary School				
Property Protection	1	Project will protect building from power loss.				
Cost-Effectiveness	1					
Technical	1					
Political	1					
Legal	1	The Township 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	Engineer, Township OEM, Administration, School Board				
Other Community Objectives	1					
Total	12					
Priority (High/Med/Low)	High					





	Α	ction W	orkshee	t				
Project Name:	2021-Montague-003	2021-Montague-003						
Project Number:	2020-Sheldon-008							
	Risk / Vulnerability							
Hazard(s) of Concern:	Flood, Severe Weath	Flood, Severe Weather						
Description of the Problem:	properties have beer Township has 2 repe flooding as well.							
Description of the Solution:	Action or Project Intended for ImplementationConduct outreach to 10 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).							
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂				
Level of Protection:	1% annual chance flood       Estimated Benefits         event + freeboard (in       Estimated Benefits         accordance with flood       (losses avoided):         ordinance)       Image: Contract of the second se			Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.				
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)		Goals Met:		1, 2, 3			
Estimated Cost:	\$500,000		Mitigation Action Type:		Structure and Infrastructure Project			
		for Imp	lementa					
Prioritization:	High			d Timeframe for nentation:	6-12 months			
Estimated Time Required for Project Implementation:	Three years		Potential Funding Sources:		FEMA HMGP and FMA, local cost share by residents			
Responsible Organization:	NFIP Floodplain Administrator, suppor homeowners	-	Local Planning Mechanisms to be Used in Implementation if any:		Hazard Mitigation			
	Three Alternatives	Consid			Fuelsetien			
	Action No Action		E	stimated Cost \$0	Evaluation Current problem continues			
Alternatives:	Elevate homes		\$500,000		When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads			
	Elevate roads		\$500,000		Elevated roadways would not protect the homes from flood damages			
	Progress Rep	port (fo	r plan m	aintenance)				
Date of Status Report:								
<b>Report of Progress:</b>								
Update Evaluation of the Problem and/or Solution:								





	Action Worksheet					
Project Name:	Repetitive Loss Properties					
Project Number:	2021-Montague-003					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1	Families moved out of high-risk flood areas.				
Property Protection	1	Properties removed from high-risk flood areas.				
Cost-Effectiveness	1	Cost-effective project				
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	0	Project would remove families from the flood prone areas of the Township				
Administrative	0					
Multi-Hazard	1	Flood, Severe Weather				
Timeline	0					
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners				
Other Community Objectives	1					
Total	10					
Priority (High/Med/Low)	High					





	A	ction W	orkshee	t				
Project Name:	Impact Resistant Wi	Impact Resistant Windows and Shutters for Town Hall						
Project Number:	2021-Montague-006	2021-Montague-006						
	Ri	Risk / Vulnerability						
Hazard(s) of Concern:	Hurricane, Nor'Easte	er, Sever	e Weathe	r, Severe Winter Wea	ther			
Description of the Problem:	It is unknown if the v impact resistant.	windows	of the to	wn hall building locat	ed at 277 Clover Road are			
	Action or Proje	ct Intend	ded for Iı	nplementation				
Description of the Solution:		tant. If n	ot, the To	wnship will retrofit r	r not the windows of town nunicipal building with			
Is this project related to a C Lifeline?	Critical Facility or	ritical Facility or Yes 🖂 No 🗌						
Level of Protection:	500-year wind event	500-year wind event Estimated Benefits (losses avoided):			Reduction in risk of roof failure and protection of critical services			
Useful Life:	25 years		Goals Met:		2, 6			
Estimated Cost:	High		Mitigation Action Type:		Structure and Infrastructure Project			
	Plan	for Imp	lementa					
Prioritization:	High			l Timeframe for ientation:	3 years			
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		HMGP, BRIC, USDA Community Facilities Grant Program, Township budget			
Responsible Organization:	OEM, Public Works		Mechai in Impl	lanning nisms to be Used ementation if any:	Hazard mitigation, Emergency management			
	Three Alternatives	s Consid						
	Action		E	stimated Cost	Evaluation			
Alternatives:	No Action Build new Pump Fa	cility		\$0 High	Current problem continues Costly, unnecessary			
mernatives.	Build small pump station				Costly, facility unlikely to			
	in case of failur			High	be used			
	Progress Re	port (fo	r plan ma	aintenance)				
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								





Action Worksheet						
Project Name:	Impact Resistant Window	Impact Resistant Windows and Shutters for Town Hall				
Project Number:	2021-Montague-006					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1	Protects critical services of Town Hall				
Property Protection	1	Protects Town Hall from wind damages				
Cost-Effectiveness	1					
Technical	1	The project is technically feasible				
Political	1					
Legal	1	The Township has the legal authority to complete the project				
Fiscal	0	The project requires funding support				
Environmental	1					
Social	1					
Administrative	1					
Multi-Hazard	1	Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather				
Timeline	0	5 years				
Agency Champion	1	OEM, Public Works				
Other Community Objectives	1					
Total	12					
Priority (High/Med/Low)	High					





	А	ction W	orkshee	t			
Project Name:	Delaware River Stud	Delaware River Study					
Project Number:	2021-Montague-008						
	Ri	sk / Vul	nerabilit	y			
Hazard(s) of Concern:	Flood						
Description of the Problem:	the Delaware River. damages.	Properti	ies locate	d along the river are	r of the State and sits along susceptible to flooding and		
	Action or Project	ct Intend	ded for Ir	nplementation			
Description of the Solution:	Conduct a study along the river banks of the Delaware River to identify areas that need to be elevated to reduce flooding impacts. Once identified, cost-effective actions will be carried out.						
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🛛			
Level of Protection:	TBD by flood study			ted Benefits avoided):	Reduction in flood risk in selected areas		
Useful Life:	TBD by flood study		Goals M	let:	1, 2, 4		
Estimated Cost:	TBD by flood study		Mitigation Action Type:		Local Plans and Regulations, Structure and Infrastructure Projects		
	Plan	for Imp	lementa				
Prioritization:	High			l Timeframe for ientation:	Within 5 years		
Estimated Time Required for Project Implementation:	5 years		Potential Funding Sources:		HMGP, BRIC, municipal budget		
Responsible Organization:	Engineer		Mechar	lanning nisms to be Used ementation if any:	Hazard mitigation planning, stormwater planning		
	Three Alternatives	Consid	ered (inc	luding No Action)			
	Action		Es	stimated Cost	Evaluation		
	No Action			\$0	Current problem continues		
Alternatives:	Elevate roadwa	ys	\$500,000		Costly and may not solve problem		
	Buyout homes		High		Costly, negative social impacts		
	Progress Rej	port (fo	r plan ma	aintenance)			
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





	Action Worksheet					
Project Name:	Delaware River Study					
Project Number:	2021-Montague-008					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	0					
Property Protection	1	Reduction in flooding risk				
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	Project would reduce flooding impacts.				
Administrative	0					
Multi-Hazard	1	Flood				
Timeline	0					
Agency Champion	1	Engineer				
Other Community Objectives	1					
Total	9					
Priority (High/Med/Low)	High					





# 9.16 TOWN OF NEWTON

This section presents the jurisdictional annex for the Town of Newton. The annex includes a general overview of the Town of Newton; an assessment of the Town of Newton'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.

# 9.16.1 Hazard Mitigation Planning Team

The Town of Newton 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).

Primary Point of Contact		Alternate Point of Contact
Name / Title: Dan Finkle, Deputy OEM Coordinator Address: 39 Trinity Street, Newton, NJ 07860 Phone Number: (973) 383-3521 x267 Email: dfinkle@newtonoem.org		Name / Title: Ken Teets, OEM Coordinator Address: 39 Trinity Street, Newton, NJ 07860 Phone Number: (973) 383-3521, x362 Email: kteets@newtonoem.org
NFIP Floodplain Adn Name / Title: Cory Stor Address: 17 Plains Roa Phone Number: 973-94 Email: cstoner@hpello	ner, Town Engineer Id, Augusta, NJ 07822 I8-6463	
Name	Title	Method of Participation
Dan Finkle	Deputy OEM Coordinator	Primary point of contact, provided data and information, contributed to mitigation strategy; attended the kickoff meeting, annex training and mitigation strategy workshop; posted mitigation plan update on the Town website and on social media (Facebook and Twitter)
Ken Teets	OEM Coordinator	Alternate point of contact
Cory Stoner	Town Engineer	NFIP floodplain administrator
Katherine CitterbartZoning Officer, Land Use Secretary, Historic Preservation Advisory Commission Secretary		Provided recent and anticipated development
Jessica Caldwell	Planner	Attended the annex training
Terry Oswin	Deputy Town Manager/ Deputy Municipal Clerk	Attended the kickoff meeting and annex training
Thomas Russo	Town Manager	Reviewed the annex*
Harold Pellow	Consultant Engineer	Reviewed the annex*
Monica Mieback	Fiscal/CFO	Reviewed the annex*
Joseph Butto	Building Code Official	Reviewed the annex*

## Table 9.16-1. Hazard Mitigation Planning Team





Name	Title	Method of Participation
Adam Vough	Public Works Director	Reviewed the annex*
Robert Osborn	Police Department	Reviewed the annex*
Anthony Razzano	Fire Department	Reviewed the annex*

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B

# 9.16.2 Jurisdiction Profile

The Town of Newton is located centrally in Sussex County and is the county seat of the County. It is bordered to the north by Hampton Township, to the south and east by Andover Township and to the west by Fredon Township. The Town covers an area of approximately 3.2 square miles. The Paulins Kill Tributary flows through the Town and the Pequest River is found in the southern end of the Town.

According to the U.S. Census, the 2010 population for the Town of Newton was 7,997. The estimated 2018 population was 7,895, a 1.3 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 4.0 percent of the population is 5 years of age or younger and 17.9 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.

# 9.16.3 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 9.15-2 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.

Type of Development	2	015	2	016	2	017	2	018	2	019
	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	7	0	0	0	12	0	22	0
Multi-Family	0	0	2	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	0	0	2	0	0	0	5	0	0	0
Property or Development Name		ype of opment	# of Units / Structures		Location (address # of Units / and/or block Structures and lot)		Known Hazard Zone(s)*		Description / Status of Development	
		Recent N	lajor De	velopment	and Inf	rastructur	e from 2	015 to Pres	sent	
AutoZone	Commo	ercial	1		124 Water Street		Nuclear Incident Hazard Area		Complete	
RPM Development Group – Newton Town Centre	Resider	ntial	65 Units		225 Spring Street		Nuclear Incident Hazard Area, Hazardous Material		Complete	

# Table 9.16-2. Recent and Expected Future Development





				Incident Area,	
				Carbonate Soil	
Thor Labs – Natural Selections	Commercial	1	Block 18.02 Lots 2, 3, 19- 23,31 & 32	Nuclear Incident Hazard Area, Hazardous Material Incident Area, Carbonate Soil	Construction in Progress
Martorana/Grand Villaggio	Residential	54 Townhomes and 6 Low/Moderate Income Apartments	Block 22.05, Lot 13 – 104 Sparta Ave	Nuclear Incident Hazard Area, Hazardous Material Incident Area, Carbonate Soil	Approved May 15, 2013. Nearing completion
Kn	own or Anticipate	d Major Developm	ent and Infrastruc	ture in the Next Fiv	ve (5) Years
Thorlabs – Quantum Realm	Commercial	2	Block 20.02, Lot 1 and Block 22.04, Lots 3 & 4, 1 Brooks Plaza	Nuclear Incident Hazard Area, Hazardous Material Incident Area, Carbonate Soil	Approved February 17, 2021-Construction of a 153,000 warehousing/distribution facility. No anticipated start date.
121 Water Street	Mixed Use	5 Structures	121 Water Street	Nuclear Incident Hazard Area	Anticipated, no approval to date
Weis Markets #143 - Gas-N-Go	Commercial	1	119-121 Water Street	Nuclear Incident Hazard Area, Carbonate Soil	Construction of a gas station with a kiosk and six fueling stations. Approved July 15, 2020

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

SFHA = Special Flood Hazard Area

# 9.16.4 Capability Assessment

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

		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
Comment: State mandated on local level under NJ. Adopted 9/3/2019 The Construction Department is respon. 52:27D-119 et seq.).		Ū	e Uniform Cons		
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: • State permissive on local level. Per Stat Power to zone, requires all jurisdictions has adopted the land use element and m • The Code Enforcement is responsible for	s to have current zo aster plan.	oning and other land de	velopment ordin	ances after the pl	
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<ul> <li>P.L.1975, c.291 (C.40:55D-47): 40:55L The governing body may by ordinance r the filing of such plats with the county r</li> </ul>	equire approval of ecording officer an	f subdivision plats by re ad approval of site plans	solution of the p s by resolution o	lanning board as f the planning bo	a condition for
<ul> <li>condition for the issuance of a permit for or two dwelling-unit buildings shall be of adjustment shall substitute for that of or site plan pursuant to subsection 63b.</li> <li>commissioners of any county having a county by said county planning board a set forth and limited hereinafter in this</li> <li>The Planning Board is responsible for t (2011).</li> </ul>	exempt from such s the planning boar of this act . Dictat county planning boar and for the approva- section.	ite plan review and app d whenever the board o ed by the Municipal Lar ard shall provide for th al of those subdivisions	proval; provided of adjustment has nd Use Law. NJ ne review of all s affecting county	that the resolution s jurisdiction over Statute 40:27-6.2 ubdivisions of lar v road or drainag	r detached one on of the board • a subdivision • - the board of nd within the e facilities as
<ul> <li>or two dwelling-unit buildings shall be of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a county by said county planning board a set forth and limited hereinafter in this</li> <li>The Planning Board is responsible for to (2011).</li> </ul>	exempt from such s the planning boar of this act . Dictat county planning boar and for the approva- section.	ite plan review and app d whenever the board o ed by the Municipal Lar ard shall provide for th al of those subdivisions	proval; provided of adjustment has nd Use Law. NJ ne review of all s affecting county	that the resolution s jurisdiction over Statute 40:27-6.2 ubdivisions of lar v road or drainag	r detached one on of the board • a subdivision • - the board of nd within the e facilities as
or two dwelling-unit buildings shall be of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board d set forth and limited hereinafter in this • The Planning Board is responsible for t	exempt from such s C the planning boar of this act . Dictat ounty planning boar und for the approve section. his ordinance in co Yes de, N.J.A.C. 7:8	ite plan review and app d whenever the board o ed by the Municipal Lan ard shall provide for th il of those subdivisions ompliance with Chapter State & Local	proval; provided f adjustment has nd Use Law. NJ te review of all s affecting county 240 – Land Sub Yes	that the resolution s jurisdiction over Statute 40:27-6.2 ubdivisions of lar y road or drainag odivision and Site Yes	r detached one on of the board - a subdivision - the board of the within the e facilities as Plan Review -
or two dwelling-unit buildings shall be of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this The Planning Board is responsible for t (2011). Stormwater Management Comment: See Title 7 of the NJ Administrative Coa All application which come before the F Municipal Code.	exempt from such s C the planning boar of this act . Dictat ounty planning boar und for the approve section. his ordinance in co Yes de, N.J.A.C. 7:8	ite plan review and app d whenever the board o ed by the Municipal Lan ard shall provide for th il of those subdivisions ompliance with Chapter State & Local	proval; provided f adjustment has nd Use Law. NJ te review of all s affecting county 240 – Land Sub Yes	that the resolution s jurisdiction over Statute 40:27-6.2 ubdivisions of lar y road or drainag odivision and Site Yes	r detached one on of the board - a subdivision - the board of nd within the e facilities as Plan Review -
or two dwelling-unit buildings shall be of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this • The Planning Board is responsible for t (2011). Stormwater Management Comment: • See Title 7 of the NJ Administrative Coa • All application which come before the F Municipal Code. Post-Disaster Recovery	exempt from such s the planning boar of this act . Dictat ounty planning boar ind for the approve section. his ordinance in co Yes le, N.J.A.C. 7:8 Planning Board are	ite plan review and app d whenever the board o ed by the Municipal Lan ard shall provide for th il of those subdivisions ompliance with Chapter State & Local	proval; provided f adjustment has nd Use Law. NJ te review of all s affecting county 240 – Land Sub Yes ter Managemen	that the resolution s jurisdiction over Statute 40:27-6.2 ubdivisions of lar v road or drainag odivision and Site Yes t Ordinance - Cha	r detached one m of the board • a subdivision • the board of nd within the e facilities as Plan Review -
or two dwelling-unit buildings shall be of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this • The Planning Board is responsible for t (2011). Stormwater Management Comment: • See Title 7 of the NJ Administrative Coa • All application which come before the F	exempt from such s the planning boar of this act . Dictat ounty planning boar ind for the approve section. his ordinance in co Yes le, N.J.A.C. 7:8 Planning Board are	ite plan review and app d whenever the board of ed by the Municipal Lan ard shall provide for th il of those subdivisions ompliance with Chapter State & Local e subject to the Stormwa - State, Division of	proval; provided f adjustment has nd Use Law. NJ te review of all s affecting county 240 – Land Sub Yes ter Managemen	that the resolution s jurisdiction over Statute 40:27-6.2 ubdivisions of lar v road or drainag odivision and Site Yes t Ordinance - Cha	r detached one m of the board • a subdivision • the board of nd within the e facilities as Plan Review -
or two dwelling-unit buildings shall be of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this The Planning Board is responsible for t (2011). Stormwater Management Comment: • See Title 7 of the NJ Administrative Cod • All application which come before the F Municipal Code. Post-Disaster Recovery Comment:	exempt from such s Che planning boar of this act . Dictat ounty planning boar ount for the approva- section. his ordinance in co Yes le, N.J.A.C. 7:8 Planning Board are No Yes a contract of sale, a mmission. The POS type of title and ow	ite plan review and app d whenever the board of ed by the Municipal Law ard shall provide for th al of those subdivisions ompliance with Chapter State & Local e subject to the Stormwa - State, Division of Consumer Affairs all purchasers must reco S provides information s mership interest being of	proval; provided of adjustment has nd Use Law. NJ te review of all s affecting county 240 – Land Sub Yes ter Managemen No Yes eive a New Jerse such as estimate	that the resolutions is jurisdiction over Statute 40:27-6.2 ubdivisions of lar voad or drainag odivision and Site Yes t Ordinance - Chan - Yes y Public Offering d completion date	r detached one m of the board - a subdivision - the board of ad within the e facilities as Plan Review - - apter 258 of the - - - g Statement 25 for

# Table 9.16-3. Planning, Legal and Regulatory Capability





		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
			has a Planning Board		
Comment: • State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make • The Code Enforcement is responsible fo Code). Site Plan Review	lineation of Growt the Plan Endors	h Areas and Environs; ement process a growth	Use of the endor management st	sed plans in the trategy.	implementation
			Board		
on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publ given to the county planning board at le a copy of the official notice of the public The Planning Board is responsible for th Review.	djoining county r ic lands shown on ast 10 days prior t hearing together hese requirements	bads or other county la the county master plan the public hearing the with a copy of the prop	nds, or lands lyin n or official coun ereon by persond osed ordinance.	ng within 200 feel ty map. Such no Il delivery or by c	t of a municipa tice shall be certified mail oj
	) T				
Environmental Protection	No	-	No	-	-
	No		No	-	
Comment: Flood Damage Prevention Comment:	Yes	Federal, State & Local	Yes	Yes	2021-Newton 015
Environmental Protection Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. • The Construction Official is responsible • The ordinance lacks discussion of the state Wellhead Protection Comment: • Underground Storage Tank Regulations wellhead protections areas through the A	Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review ce. Regulations for for this ordinance ate mandated 1-for Yes (N.J.A.C. 7:14B) New Jersey Depar	Federal, State & Local 4-52) and the National do not require local ad ed for compliance with r the Flood Control Ha in compliance with Ch ot freeboard requireme State & Local establishes regulations tment of Environmenta	Yes Flood Control A option but as enj these regulation zards Act were a mapter 120 – Floo nt. The ordinanc No and requires pen l Protection.	Yes let of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a od Damage Preve e requires update Yes rmitting for stora	2021-Newtor 015 ?) are state and DEP, the articipation in nd amended ention (2011). 2. - ge tanks in
Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. • The Construction Official is responsible • The ordinance lacks discussion of the stat Wellhead Protection Comment: • Underground Storage Tank Regulations wellhead protections areas through the • The Planning Board and the Board of H Municipal Code.	Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review e. Regulations for for this ordinance ate mandated 1-for Yes (N.J.A.C. 7:14B) New Jersey Depar lealth are responsi	Federal, State & Local 4-52) and the National do not require local ad ed for compliance with r the Flood Control Ha in compliance with Ch ot freeboard requireme State & Local establishes regulations tment of Environmenta ble for compliance per	Yes Flood Control A option but as enj these regulation zards Act were a papter 120 – Floo nt. The ordinance No and requires per l Protection. Section 240-10 -	Yes Ict of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a od Damage Preve e requires update Yes rmitting for stora - Wellhead Prote	2021-Newtor 015 2) are state and DEP, the articipation in nd amended ention (2011). 2. - ge tanks in ction of the
Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. • The Construction Official is responsible • The ordinance lacks discussion of the state Wellhead Protection Comment: • Underground Storage Tank Regulationss wellhead protections areas through the state • The Planning Board and the Board of H Municipal Code. Emergency Management	Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review ce. Regulations for for this ordinance ate mandated 1-for Yes (N.J.A.C. 7:14B) New Jersey Depar	Federal, State & Local 4-52) and the National do not require local ad ed for compliance with r the Flood Control Ha in compliance with Ch ot freeboard requireme State & Local establishes regulations tment of Environmenta	Yes Flood Control A option but as enj these regulation zards Act were a mapter 120 – Floo nt. The ordinanc No and requires pen l Protection.	Yes let of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a od Damage Preve e requires update Yes rmitting for stora	2021-Newtor 015 ?) are state and DEP, the articipation in nd amended ention (2011). 2. - ge tanks in
Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. • The Construction Official is responsible • The ordinance lacks discussion of the sta Wellhead Protection Comment: • Underground Storage Tank Regulations wellhead protections areas through the . • The Planning Board and the Board of H Municipal Code. Emergency Management Comment:	Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review ce. Regulations for for this ordinance ate mandated 1-for Yes (N.J.A.C. 7:14B) New Jersey Depar lealth are responsi No	Federal, State & Local 4-52) and the National do not require local ad ed for compliance with r the Flood Control Ha in compliance with Ch ot freeboard requireme State & Local establishes regulations tment of Environmenta ble for compliance per	Yes Flood Control A option but as enj these regulation zards Act were a papter 120 – Floo nt. The ordinance No and requires pen l Protection. Section 240-10 - No	Yes Ict of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a od Damage Preve e requires update Yes rmitting for stora - Wellhead Prote	2021-Newtor 015 2) are state and DEP, the articipation in nd amended ention (2011). 2. - ge tanks in ction of the
Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. • The Construction Official is responsible • The ordinance lacks discussion of the state Wellhead Protection Comment: • Underground Storage Tank Regulationss wellhead protections areas through the state • The Planning Board and the Board of H Municipal Code. Emergency Management Comment: Climate Change	Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review e. Regulations for for this ordinance ate mandated 1-for Yes (N.J.A.C. 7:14B) New Jersey Depar lealth are responsi	Federal, State & Local 4-52) and the National do not require local ad ed for compliance with r the Flood Control Ha in compliance with Ch ot freeboard requireme State & Local establishes regulations tment of Environmenta ble for compliance per	Yes Flood Control A option but as enj these regulation zards Act were a papter 120 – Floo nt. The ordinance No and requires per l Protection. Section 240-10 -	Yes Ict of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a od Damage Preve e requires update Yes rmitting for stora - Wellhead Prote	2021-Newtor 015 2) are state and DEP, the articipation in nd amended ention (2011). 2. - ge tanks in ction of the
Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. • The Construction Official is responsible • The ordinance lacks discussion of the sta Wellhead Protection Comment: • Underground Storage Tank Regulations wellhead protections areas through the . • The Planning Board and the Board of H Municipal Code. Emergency Management Comment: Climate Change Comment:	Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review ce. Regulations for for this ordinance ate mandated 1-for Yes (N.J.A.C. 7:14B) New Jersey Depar lealth are responsi No No	Federal, State & Local 4-52) and the National do not require local ad ed for compliance with r the Flood Control Ha in compliance with Ch ot freeboard requireme State & Local establishes regulations tment of Environmenta ble for compliance per	Yes Flood Control A option but as enj these regulation zards Act were a papter 120 – Floo nt. The ordinance No and requires per l Protection. Section 240-10 – No No	Yes Ict of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a od Damage Preve e requires update Yes rmitting for stora - Wellhead Prote	2021-Newtor 015 2) are state and DEP, the articipation in nd amended ention (2011). 2. - ge tanks in ction of the -
Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. • The Construction Official is responsible • The ordinance lacks discussion of the state Wellhead Protection Comment: • Underground Storage Tank Regulationss wellhead protections areas through the state • The Planning Board and the Board of H Municipal Code. Emergency Management Comment: Climate Change Comment: Disaster Recovery Ordinance	Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review ce. Regulations for for this ordinance ate mandated 1-for Yes (N.J.A.C. 7:14B) New Jersey Depar lealth are responsi No	Federal, State & Local 4-52) and the National do not require local ad ed for compliance with r the Flood Control Ha in compliance with Ch ot freeboard requireme State & Local establishes regulations tment of Environmenta ble for compliance per	Yes Flood Control A option but as enj these regulation zards Act were a papter 120 – Floo nt. The ordinance No and requires pen l Protection. Section 240-10 - No	Yes Ict of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a od Damage Preve e requires update Yes rmitting for stora - Wellhead Prote	2021-Newtor 015 2) are state and DEP, the articipation in nd amended ention (2011). 2. - ge tanks in ction of the
Comment: Flood Damage Prevention Comment: • The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016. • The Construction Official is responsible • The ordinance lacks discussion of the sta Wellhead Protection Comment: • Underground Storage Tank Regulations wellhead protections areas through the . • The Planning Board and the Board of H Municipal Code. Emergency Management Comment: Climate Change Comment:	Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review ce. Regulations for for this ordinance ate mandated 1-for Yes (N.J.A.C. 7:14B) New Jersey Depar lealth are responsi No No	Federal, State & Local 4-52) and the National do not require local ad ed for compliance with r the Flood Control Ha in compliance with Ch ot freeboard requireme State & Local establishes regulations tment of Environmenta ble for compliance per	Yes Flood Control A option but as enj these regulation zards Act were a papter 120 – Floo nt. The ordinance No and requires per l Protection. Section 240-10 – No No	Yes Ict of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a od Damage Preve e requires update Yes rmitting for stora - Wellhead Prote	2021-Newtor 015 2) are state and DEP, the articipation in nd amended ention (2011). 2. - ge tanks in ction of the -



		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Other: Municipal Separate Storm Sewer System (MS4)	Yes	Local	Yes	Yes	-
Comment: • The Town is responsible for this ordinan Storm Sewer.	nce in compliance	with Chapter 228, Artic	ele 7 – Sewer and	d Water; Municip	al Separate
Other: Natural Hazard Ordinance	Yes	Local	No	Yes	-
Comment:	u thia audiu au aa iu	oomaliguoo with Chan	ton 220 Zoning	~ (2011) Steam 9	Slongs
The Code Enforcement is responsible for Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	No	Yes	-
Comment: • The Town is responsible for these ordina Obstruction, Chapter 297 – Tree Bank, a			and Use Proced	lures, Chapter 26	2 – Stream
Planning Documents	ſ		1	1	
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
auvise the bourd of chosen commissione.	rs with respect to a	the formulation of devel	lopment program	ns and budgets fo	lan and to or capital
expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be c The Planning Board is responsible for th	Land Use Law (M and requires that consistent with the	(LUL) L. 1975, s. 2, eff . each municipality prep Master Plan or will not	lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr	ns and budgets fo 55D-28 provides in and update it e om a presumption	or capital the required very 6 years. n of validity.
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expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be c • The Planning Board is responsible for th Capital Improvement Plan Comment: • The Town Manager is responsible for the projection. Disaster Debris Management Plan	Land Use Law (M and requires that consistent with the his plan in complia Yes is plan. The plan i	(LÜL) L. 1975, s. 2, eff. each municipality prep. Master Plan or will noi unce with Town of Newt Local	lopment progran Aug 1, 1976 40: are a master pla t be benefitted fi on master Plan, No	ns and budgets fo 55D-28 provides n and update it e com a presumption August 2008 (20 Yes	or capital the required very 6 years. n of validity. 09/2010). - with 5-year
expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be c • The Planning Board is responsible for th Capital Improvement Plan Comment: • The Town Manager is responsible for the projection. Disaster Debris Management Plan Comment:	Land Use Law (M and requires that consistent with the his plan in complia Yes is plan. The plan i	(LÜL) L. 1975, s. 2, eff. each municipality prep. Master Plan or will noi unce with Town of Newt Local	lopment progran Aug 1, 1976 40: are a master pla t be benefitted fi on master Plan, No	ns and budgets fo 55D-28 provides n and update it e com a presumption August 2008 (20 Yes	or capital the required very 6 years. n of validity. 09/2010). - with 5-year 2021-Newton
expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be c • The Planning Board is responsible for th Capital Improvement Plan Comment: • The Town Manager is responsible for th projection. Disaster Debris Management Plan Comment: Floodplain or Watershed Plan	Land Use Law (M and requires that consistent with the his plan in complia Yes is plan. The plan i No	(LÜL) L. 1975, s. 2, eff. each municipality prep. Master Plan or will noi unce with Town of Newt Local	lopment program Aug 1, 1976 40: are a master pla t be benefitted fi on master Plan, No is a part of the No	ns and budgets fo 55D-28 provides n and update it e com a presumption August 2008 (20 Yes	or capital the required very 6 years. n of validity. 09/2010). - with 5-year 2021-Newton
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SEX	COIL
54	
11	TERSE

				Have aspects of the HMP been integrated into your	
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	ances/plans? If no - add Mitigation Action #, if applicable.
associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from thu ordinances (litter control, pet waste, wil management plan and implementing ord basin cleaning); implementing solids an education component. Urban Water Management Plan	tter Act. These NJ. sewer systems, kn such as universitt am establishes the ese sources. The S dlife feeding, prop linance(s); requiri	PDES rules govern the own as MS4s. Under th ies and hospitals, and S e Statewide Basic Requi tatewide Basic Required per waste disposal, etc.) ng certain maintenance	issuance of perm is program, pern tate, interstate a rements that mu, ments include mo ; the developmen activities (such	nits to entities tha nits must be secur nd federal agenci st be implemented easures such as: t nt of a municipal as street sweepin	t own or red by es that operate l to reduce he adoption of stormwater g and catch
Comment:					
Habitat Conservation Plan	No	-	No	_	_
Comment:		1			
Economic Development Plan	Yes	Local	No	Yes	_
Comment: The Planning Board is responsible for t					
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
structures, and site preparation. This la Community Wildfire Protection Plan Comment:	w is implemented No	through NJ's Coastal Z -	one managemen No	t Rules N.J.A.C. 7 -	7:7E-1 et seq. -
Community Forest Management Plan Comment:	Yes	Local	No	Yes	-
The Community Forestry Management 1     resources under the jurisdiction of the 1					blic tree
Transportation Plan	Yes	Local	No	Yes	-
Comment: • 2012 Adopted Circulation Plan Element					
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	No	-
<i>Comment:</i> <ul> <li>The Planning Board is responsible for the second sec</li></ul>	his plan in compli	mag with Town of Norm	on Master Dlan	August 2000	
The Planning Board is responsible for the Other: Watershed Management or Protection Plan	Yes	Local	No	August 2008. Yes	-
<b>Comment:</b> The Licensed Operator is responsible for	or this plan, and it	is a part of the Forestry	Plan.		
<b>Response/Recovery Planning</b>					



	X	COI	
(E		2	
	3	1	-)
	11	TER	9

		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?				
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.			
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-			
<ul> <li>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.</li> <li>The Office of Emergency Management is responsible for this plan, which is incorporated into the EOP. The plan is currently being updated.</li> </ul>								
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-			
Comment:								
Post-Disaster Recovery Plan	Yes	Local	No	Yes	-			
Comment: The OEM is responsible for this plan, w	hich is incorporate	ed into the EOP. The pla	an is currently b	eing updated.				
Continuity of Operations Plan	Continuity of Operations Plan No - No							
Comment:	Comment:							
Public Health Plan	No	-	No	-	-			
Comment:								
Other Plans	No	-	No	-	-			
Comment:								

### Table 9.16-4. 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 these permits per Section 120-12 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 2008 Master Plan projects that a total of 1,920 units could be built increasing the population by 4,589.

#### ADMINISTRATIVE AND TECHNICAL CAPABILITY

The table below summarizes potential staff and personnel resources available to the Town of Newton.

### Table 9.16-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning and Zoning Boards
Mitigation Planning Committee	No	-
Environmental Board / Commission	Yes	Shade Tree Commission
Open Space Board / Committee	Yes	Recreation Committee; Shade Tree Commission
Economic Development Commission / Committee	Yes	Economic Development Commission
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Nixle





Staff/Personnel Resource	Available?	Department/Agency/Position
Maintenance program to reduce risk	No	The Town plans to implement municipal programs to prevent trees from threatening lives and impacting power availability/interruption (2021-Newton-014).
Mutual aid agreements	Yes	Agreements are in place with neighboring communities but require strengthening (2021- Newton-012).
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Professional Engineer - consultant
Engineers or professionals trained in building or infrastructure construction practices	Yes	Professional Engineer - consultant
Planners or engineers with an understanding of natural hazards	Yes	Professional Engineer and Planners- consultant
Staff with training in benefit/cost analysis	No	-
Staff with training in green infrastructure	Yes	Professional Engineer and Planners- consultant
Staff with education/knowledge/training in low impact development	No	-
Surveyor	Yes	Professional Engineer - consultant
Stormwater engineer	Yes	Professional Engineer - consultant
Personnel skilled or trained in GIS applications	Yes	Professional Engineer - consultant
Local or state water quality professional	Yes	Professional Engineer - consultant
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	Kenneth Teets, OEM Coordinator
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	Yes	Deputy Town Manager
Resilience Officer	No	-
Other: NFIP Floodplain Administrator	Yes	Construction Official
Other: Professionals trained in conducting damage assessments	Yes	Building/Construction Department

## FISCAL CAPABILITY

The table below summarizes financial resources available to the Town of Newton.

### Table 9.16-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes – housing rehab program that is a revolving fund
Capital Improvements Project Funding	Yes – part of annual budget
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	Yes – USDA rural development
Development Impact Fees for Homebuyers or Developers	No – pilots for some of the redevelopment plans
Clean Water Act 319 Grants (Nonpoint Source Pollution)	Yes





Financial Resource	Accessible or Eligible to Use?		
Other	No		

### EDUCATION AND OUTREACH CAPABILITY

The table below summarizes the education and outreach resources available to the Town of Newton.

### Table 9.16-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes, Chief of Police and Administrator
Do you have personnel skilled or trained in website development?	Yes, Contractor builds and updated the website
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	No
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes, Social media is used for emergency management including Fire department, police department, First Aid Squad and Department of Public Works.
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, municipal website, mailings, social media, Nixle, staff on foot (police and fire).

## **COMMUNITY CLASSIFICATIONS**

The table below summarizes the classifications for community programs available to the Town of Newton.

## Table 9.16-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (Fire ISO Protection Class)	No	-	-
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	Yes	None	4/13/2009

## 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 9.16-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - Strong/Moderate/Weak
Dam Failure	Moderate





Hazard	Adaptive Capacity (Capabilities) - Strong/Moderate/Weak
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 Town does not have access to resources to determine the possible impacts of climate change upon the municipality. Although climate change is not currently being integrated into current policies/actions, the administration realizes that addressing climate change is important to the environment, public health, and the economy and would be supportive of future integration efforts.

## NATIONAL FLOOD INSURANCE PROGRAM

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

#### Table 9.16-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Construction
Who is your floodplain administrator? (name, department/position)	Joseph Butto, Construction Official
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	Adopted by the Town Council on August 22, 2011
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	Meets
When was the most recent Community Assistance Visit or Community Assistance Contact?	July 31, 2006
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 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
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	24 polices \$8,360,600 insurance in force \$62,264 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	8 claims \$295,505 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

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

## ADDITIONAL AREAS OF EXISTING INTEGRATION

• Walkill River Group: The Walkill River Group conducts plantings in the floodplain.

### **OPPORTUNITIES FOR FUTURE INTEGRATION**

- **Disaster Debris Management Plan:** The Town plans to develop and implement a Disaster Debris Management Plan (2021-Newton-010).
- **Hazard Archival Process:** The Town will develop programs/ procedures to capture and archive loss data from events including the location and length of roadway closures; high water marks, amount of municipal and residential damage (2021-Newton-011).
- **Mutual Aid Agreements:** The Town will create, enhance, and maintain Mutual Aid agreements with neighboring communities for continuity of operations (2021-Newton-012).
- Damage Assessment Procedures: The Town will identify and develop agreements with entities that can
  provide support with FEMA/NJOEM paperwork after disasters; qualified damage assessment personnel –
  Improve post-disaster capabilities damage assessment; FEMA/NJOEM paperwork compilation,
  submissions, record-keeping (2021-Newton-013).
- **Vegetation Management:** The Town will implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption (2021-Newton-014).
- **Flood Damage Prevention Ordinance:** The Town will update the flood damage prevention ordinance to include a one-foot freeboard requirement (2021-Newton-015).

# 9.16.5 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 Town of Newton'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 9.15-11 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.





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 Weather and Snowstorm	Yes	A major nor'easter, produced record snowfall and blizzard conditions in parts of New Jersey on January 23 <sup>rd</sup> and 24th.	Although the County was impacted, the Town 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 Town was subject to closures of businesses and schools and mask and social distancing requirements.

### Table 9.16-11. Hazard Event History

Source: FEMA 2020, NOAA NCEI 2020

# 9.16.6 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 Town of Newton 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 Town of Newton 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 Town of Newton has significant exposure.

## **REPETITIVE FLOOD LOSSES**

The following summarizes the repetitive and severe repetitive flood losses in the Town of Newton.

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

Source: FEMA 2019 Note: The number of SRL properties excludes RL properties.

## **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 9.16-12. Critical Facilities and Lifelines Flood Exposure

			Exposure		
	Name	Туре	1% Event 0.2% Even		
22	2-104 Don Bosco Dam	Dam	Х	Х	

Source: Sussex County Planning Partnership 2020 Note: \*Identified lifeline





# IDENTIFIED ISSUES AND PROBLEM AREAS

The jurisdiction has identified the following vulnerabilities within their community:

- The Merriam Avenue School stormwater pump facility is undersized. This results in increased risk of flooding in the surrounding area that is serviced by the pump facility.
- The stormwater management system requires upgrade at the DPW Garage located on Moran Street. The Garage also requires improved access.
- The Emergency Operations Plan lacks a dam failure component.
- The roof of the Newton Municipal Building located on Trinity Street is not designed to withstand high wind.
- Fire House #2's roof is not designed with modern snow load standards. Failure of the roof could threaten the critical services of the Fire House.
- Two buildings at the Sussex County Community College are not designed with windows to withstand wind damages.
- Two buildings at the Sussex County Community College are not designed with modern snow load standards.
- Increased outreach is needed in the Town to increase public awareness.
- The Newton First Aid Squad EMS Station and three pumping stations require automatic standby generators.
- The Town seeks to strengthen sheltering capabilities.
- The Town wants to add additional support for the "Tree Watch" program to proactively manage problem areas through selective removal of hazardous trees and tree replacement.
- The Newton First Aid Squad EMS Station and three pumping stations require automatic standby generators.
- The Town lacks a Disaster Debris Management Plan.
- The Town lacks procedures to capture loss and damage data from hazard events. This limits the knowledge of hazard events and lessens the ability to apply for grant funding support.
- Large scale disaster events require the assistance of outside municipal departments.
- The Town lacks procedures to complete post disaster damage assessments.
- Falling trees cause damage property, reduce continuity of operations, and can cause injuries or death.
- The Town will update the flood damage prevention ordinance to include a one-foot 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 Town of Newton 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 Town of Newton. The Town of Newton 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 Town of Newton agreed with the calculated hazard rankings.

Dam Failure	Disease Outbre	ak Drought	Earthq	ıake		Flood	Geologic
Medium	Medium	Medium	Lov	7	Medium		Low
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter		vere other	Severe Winter Weather	Wildfire
Medium	High	Medium	High	Hi	igh	High	Low

### Table 9.16-13. Town of Newton Hazard Ranking

# 9.16.7 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 9.15-15 and Table 9.15-16 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.

2016 Action Number Action Description			Status (In Progress, No	Include in the 2021 HMP Update?	
		Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Newton- 1 (new)	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood- proofing) or acquisition/relocation to protect structures from future damage, with repetitive loss and severe repetitive loss properties as a priority when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option. Phase 2: Work with the property owners to implement selected action based on available funding and local match availability.	Engineering via NFIP FPA with NJOEM, FEMA support	Complete, the Town has no remaining RL/SRL properties		
Newton- 2 (new)	Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan; consider including hazard identification, hazard zones risk	Planning	Ongoing Capability		

# Table 9.16-14. Status of Previous HMP Mitigation Actions





			Status (In Progress, No		the 2021 HMP odate?
201	6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
	assessment information, and hazard mitigation goals as identified in the HMP. Further, the findings and recommendation of the HMP will be considered during any future site plan review processes.				
Newton- 3 (new)	Fire House #2 is in need of updating/renovating. This will include the incorporation of the Town EOC.	Town Administration, Fire Department, OEM	Complete. The Town used budget funding and bonding. The final cost of construction was approximately \$2 million. The Town Architect Thomas Kosten and the Town Engineer Harold E. Pellow & Associates overall the project design and construction. The project scope was modified from renovating the existing fire house to a project that would demolish the existing fire house building and replace with a new fire house structure. The project was fully completed in 2019.		
Newton- 4 (revised old #9)	Dam Site #2 - the Town is in the process of working with the NJDEP to raise the area to the 100-year flood level	Town DPW and Engineering, NJDEP	Complete. The Town of Newton used their available funds and bonding. The final project construction cost was \$85,412. The Town of Newton contracted for the dam work. The contractor was T.R. Weniger Inc. Harold E. Pellow & Assoc., Newton Town Engineers, oversaw the dam improvement work for the Town. No substantial change to the original scope. The crest of the dam was raised as required by NJDEP Dam Safety Section, the underground reinforced concrete structural sill was constructed in the emergency spillway area,		





			Status (In Progress, No	Include in the 2021 HMP Update?			
201	6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
			and the disturbed portions of the dam were re-topsoiled, seeded, and stabilized upon completion of the improvements.				
Newton- 5 (new)	Work with the County and NJDOT to identify and address the drainage issues along Woodside Avenue.	Town DPW, County, and NJDOT	No Progress				
Newton- 6 (new)	Ensure continuity of operations at critical locations: Backup generators for the municipal schools – used for shelters for the Town	School Board, Town Administration	In Progress	Х	2021-Newton- 009		
Newton- 7 (new)	Ensure continuity of operations at critical locations: Backup power for the nursing homes and dialysis center located in the Town	Building Operators with support from the Town	In Progress	Х	2021-Newton- 009		
Newton- 8 (old #11)	Upgrade capacity of Merriam Avenue School stormwater pump facility.	Town DPW and Engineer	No Progress				
Newton- 9 (old #12)	Retrofit roof to meet current standards for high winds on Newton Municipal Building located on Trinity Street.	Town Administration	No Progress	х	2021-Newton- 004		
Newton- 10 (old #14)	Retrofit roof to meet current standards for snow load of Fire House #2 located on Woodside Avenue.	Town Engineer and Fire Department	No Progress	Х	2021-Newton- 005		
Newton- 11 (old #15)	Stormwater management system upgrade and improvement access way to DPW Garage located on Moran Street.	Town DPW and Engineer	No Progress	х	2021-Newton- 002		
Newton- 12 (old #17)	Retrofit two buildings with impact resistant windows and shutters at the Sussex County Community College	Engineering and School Administration	No Progress	Х	2021-Newton- 006		
Newton- 13 (old #18)	Retrofit two buildings to meet current snow load standards at the Sussex County Community College	Engineering and School Administration	No Progress	Х	2021-Newton- 007		
Newton- 14 (old #19)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	Town Administration, OEM	No Progress	Х	2021-Newton- 008		

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





Improvements and dam hardenings were recently completed.

# **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Town of Newton 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 Town of Newton 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 9.15-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Newton 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 9.15-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.



Table 9.16-15. 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- Newton- 001	Merriam Avenue School Pump Facility	<ul> <li>Problem: The Merriam Avenue School stormwater pump facility is undersized. This results in increased risk of flooding in the surrounding area that is serviced by the pump facility.</li> <li>Solution: The Town will upgrade the capacity of Merriam Avenue School stormwater pump facility. The Engineer will design the improvements and the</li> </ul>	Existing	Flood, Severe Weather	2	Town DPW and Engineer	HMGP, BRIC, Municipal budget	Storm water system improv ed	High	5 ye ars	Hig h	SIP	SP
2021- Newton- 002	DPW Garage Stormwater and Access Upgrades	DPW will carry out the upgrades. Problem: The stormwater management system requires upgrade at the DPW Garage located on Moran Street. The Garage also requires improved access. Solution: The Engineer will design upgrades to the stormwater management system and access way improvements. The DPW will carry out the work.	Existing	Flood, Severe Weather	2, 3, 6	Town DPW and Engineer	HMGP, BRIC, Town budget	Access to DPW maintai ned	High	Wi thi n 5 ye ars	Hig h	SIP	SP
2021- Newton- 003	Dam Failure Emergency Planning	<ul> <li>Problem: The Emergency Operations Plan lacks a dam failure component.</li> <li>Solution: The Town will complete dam failure inundation mapping and include in updates to the Emergency Operations Plan for Town dams.</li> </ul>	New and Existing	Dam Failure	3,7	OEM	Town budget	Increas ed emerge ncy plannin g and prepare dness	Low		Hig h	LPR	ES
2021- Newton- 004	Municipal Building Wind Designs	<ul> <li>Problem: The roof of the Newton Municipal Building located on Trinity Street is not designed to withstand high wind.</li> <li>Solution: The Engineer will design a new roof to meet current standards for high winds on Newton Municipal Building located on Trinity Street. The Town will then replace the roof.</li> </ul>	Existing	Severe Weather, Hurricane, Nor'Easter	2, 6	Town Engineer and Administrat ion	FEMA HMGP, BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program,	Munici pal buildin g protect ed from high winds	Medi um	Wi thi n 5 ye ars	Hig h	SIP	РР





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 Town	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
							Budget						
		<b>Problem</b> : Fire House #2's roof is not designed with modern snow load standards. Failure of the roof could threaten the critical services of the Fire House.					FEMA HMGP, BRIC, USDA Communit y Facilities	Fire					
2021- Newton- 005	Snow Load Improvements at Fire House #2	<b>Solution:</b> The Engineer will design a new roof to meet current standards for snow load of Fire House #2 located on Woodside Avenue. The Fire Department will then replace the roof.	Existing	Severe Winter Weather, Nor'Easter	1, 2, 6	Town Engineer and Fire Department	Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Town Budget	House design ed to withsta nd snow load	High	Wi thi 5 ye ars	Hig h	SIP	рр
2021-	Wind Resistance Improvements at	<b>Problem</b> : Two buildings at the Sussex County Community College are not designed with windows to withstand wind damages.		Severe		Engineerin g and	Town	Colleg e official aware		2	Hig		
Newton- 006	College	<b>Solution:</b> The Town Engineer will provide guidance on the retrofit two buildings with impact resistant windows and shutters at the Sussex County Community College.	Existing	Weather, Hurricane, Nor'Easter	2	School Administrat ion	l own budget	of proper design standar ds	Low	ye ars	h	EAP	PI
2021-	Snow Load Improvements at	<b>Problem</b> : Two buildings at the Sussex County Community College are not designed with modern snow load standards.		Severe Winter		Engineerin g and	Town	Colleg e official aware		2	Hig		
2021- Newton- 007	Community College	<b>Solution:</b> The Town Engineer will provide guidance on the retrofit of two buildings to meet current snow load standards at the Sussex County Community College.	Existing	Weather, Nor'Easter	2	School Administrat ion	l own budget	of proper design standar ds	Low	ye ars	h	EAP	PI
2021- Newton-	Hazard Outreach	<b>Problem</b> : Increased outreach is needed in the Town to increase public awareness.	N/A	All Hazards	3	Town Administrat	Town budget	Increas ed public	Low	1 ye	Hig h	EAP	PI
008		<b>Solution:</b> The Town will design and conduct all-hazards public education and				ion, OEM	Ŭ	awaren ess		ar			





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution outreach program for hazard mitigation and preparedness.	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- Newton- 009	Automatic Standby Generators at Critical Facilities	<ul> <li>Problem: The Newton First Aid Squad EMS Station and three pumping stations require automatic standby generators.</li> <li>Solution: The Engineer will research what size generators are needed to power each facility. The Town will then purchase and install the selected generators and necessary electrical components to supply backup power to the facilities.</li> </ul>	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	1, 2, 6	Engineer, OEM	FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Municipal Budget	Ensure s continu ity of operati ons of critical faciliti es	\$50,0 00 per gener ator	Wi thi 5 ye ars	Hig h	SIP	ES
2021- Newton- 010	Disaster Debris Management Plan	Problem: The Town lacks a Disaster Debris Management Plan. Solution: The Town will develop and implement a Disaster Debris Management Plan.	Existing	All Hazards	3	DPW, OEM	Town budget	Plan establis hed for disaste r debris	Low	l ye ar	Hig h	LPR	ES
2021- Newton- 011	Hazard Event Archival Process	<ul> <li>Problem: The Town lacks procedures to capture loss and damage data from hazard events. This limits the knowledge of hazard events and lessens the ability to apply for grant funding support.</li> <li>Solution: The Town will develop programs/ procedures to capture and archive loss data from events including the location and length of roadway closures; high water marks, amount of municipal and residential damage.</li> </ul>	New & Existing	All Hazards	3, 4, 5	OEM, DPW, Administrat ion	Town budget	Increas ed record keepin g for hazard knowle dge and data for grant applica tions.	Staff time	Wi thi 6 m on ths	Hig h	LPR	ES
2021- Newton- 012	Mutual Aid Agreements	<b>Problem:</b> Large scale disaster events require the assistance of outside municipal departments.	New& Existing	All Hazards	3, 5, 6	OEM, Administrat ion	Town budget	Increas ed resourc	Staff time	1 ye ar	Hig h	LPR	ES





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
		<b>Solution:</b> The Town will create, enhance, and maintain Mutual Aid agreements with neighboring communities for continuity of operations.						es and ability to respon d to disaste r events.					
2021- Newton- 013	Damage Assessment Procedures	Problem: The Town lacks procedures to complete post disaster damage assessments. Solution: The Town will identify and develop agreements with entities that can provide support with FEMA/NJOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/NJOEM paperwork compilation, submissions, record- keeping.	New & Existing	All Hazards	3, 4, 5	Administrat ion, DPW, OEM	Town budget	Damag e assess ment proced ures develo ped.	Staff time	Wi thi n 6 m on ths	Hig h	LPR	ES
2021- Newton- 014	Vegetation Management	<ul> <li>Problem: Falling trees cause damage property, reduce continuity of operations, and can cause injuries or death.</li> <li>Solution: The Town will implement, review, and enforce municipal policies and programs to prevent trees from threatening lives and impacting power availability/interruption.</li> </ul>	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter , Invasive Species	1, 2	Administrat ion, DPW	Town budget	Reduce d impact s from falling trees.	Staff time	Wi thi n 6 m on ths	Hig h	LPR, NSP	NR
2021- Newton- 015	Flood Damage Prevention Ordinance Update	Problem: The Town's flood damage prevention ordinance lacks discussion of the state's freeboard requirement. Solution: The Town will update the ordinance to include the 1-foot freeboard requirement for new construction in the SFHA.	New	Flood	2	FPA, Administrat ion	Town budget	Meet state standar ds, flood protect ion	Staff time	Wi thi n 6 m on ths	Hig h	LPR	PR

Notes:

### Acronyms and Abbreviations:

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

#### Potential FEMA HMA Funding Sources:

FMAFlood Mitigation Assistance Grant ProgramHMGPHazard Mitigation Grant Program

#### <u>Timeline:</u> The time required for completion of the project upon implementation

<u>Cost:</u>



- 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

BRIC Building Resilient Infrastructure and Communities Proaram 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 9.16-16. 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- Newton- 001	Merriam Avenue School Pump Facility	0	1	1	1	1	1	0	1	1	1	1	0	1	0	10	High
2021- Newton- 002	DPW Garage Stormwater and Access Upgrades	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Newton- 003	Dam Failure Emergency Planning	1	1	1	1	1	1	1	1	1	1	0	0	1	1	12	High
2021- Newton- 004	Municipal Building Wind Designs	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Newton- 005	Snow Load Improvements at Fire House #2	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Newton- 006	Wind Resistance Improvements at Community College	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021- Newton- 007	Snow Load Improvements at Community College	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021- Newton- 008	Hazard Outreach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Newton- 009	Automatic Standby Generators at Critical Facilities	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Newton- 010	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021- Newton- 011	Hazard Event Archival Process	0	0	1	1	1	1	1	1	1	1	1	1	1	1	12	High
2021- Newton- 012	Mutual Aid Agreements	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Newton- 013	Damage Assessment Procedures	0	0	1	1	1	1	1	1	1	1	1	1	1	1	12	High



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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- Newton- 014	Vegetation Management	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021- Newton- 015	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.





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

Table 9.16-17.	Analysis of Mitigation	n Actions by Hazard an	d1 Category
	initially bib of FilleBactor	i i i cei o ii o by i i abai a aii	ar outogory

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

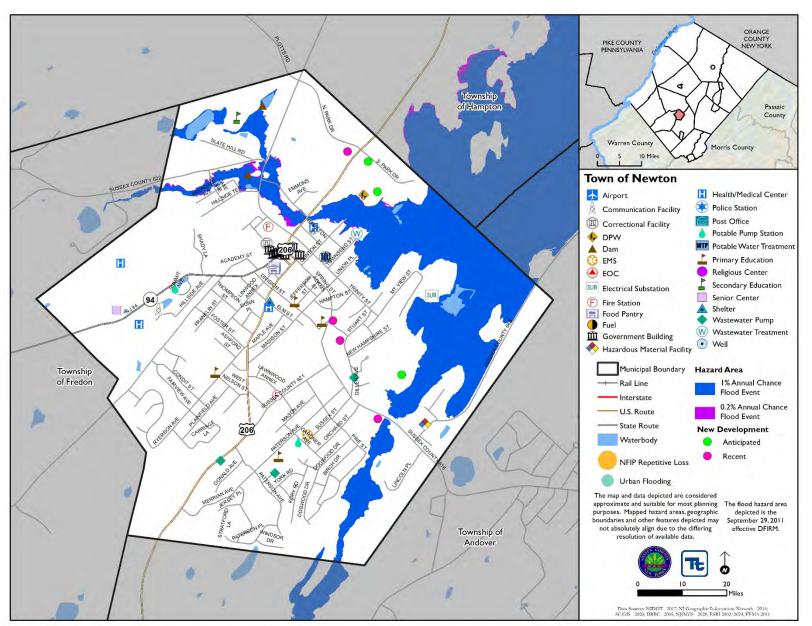
RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard







#### Figure 9.16-1. Town of Newton Hazard Area Extent and Location Map 1



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ORANGE COUNTY NEW YORK PIKE COUNTY PENNSYLVANIA -ROCKLAND COUNTY NEW YORK Township Passai of Hampton Count PARK DR Bergen Count SLATE HILL RD 12 Miles S. PARKOR 6 Town of Newton SUSSEX COUNTY Airport Health/Medical Center Police Station & Communication Facility Post Office Correctional Facility Potable Pump Station 1 DPW WTP Potable Water Treatment 206 A Dam ACADEN **Primary Education** Н 🕄 EMS Religious Center EOC Secondary Education SUB Electrical Substation Senior Center F Fire Station A Shelter Food Pantry Wastewater Pump H Fuel W Wastewater Treatment Government Building • Well Azardous Material Facility Township Municipal Boundary Indian Point Energy of Fredon - Rail Line Hazard Area - Interstate Hazardous Material U.S. Route Site I Mile Buffer = State Route 206 Indian Point Energy Center 50 Mile Buffer Waterbody Railroad I **New Development** (moon of the second Mile Buffer Anticipated Recent The map and data depicted are considered approximate and suitable for most planning purposes. Mapped hazard areas, geographic ES boundaries and other features depicted may not absolutely align Township of due to the differing resolution of available data. Andover 20 Miles Data Soucces: NJDOT - 2017; NJ Geographic Information Network - 2014; SC G1S - 2020; DRBC - 2005; NJOGIS - 2020; ESRI 2002/2020; EPA 2018





#### ORANGE COUNTY NEW YORK PIKE COUNTY PENNSYLVANIA 0 1 Township of Hampton Passaic County ATE HIL Warren County Morris County 10 Miles FRENDALENE **Town of Newton** SUSSEX COUNTY HULSIDETER Airport Health/Medical Center 😫 Police Station X **Communication Facility** Correctional Facility Post Office A Potable Pump Station 🚸 DPW 206 m WTP Potable Water Treatment A Dam M sal H 🚯 EMS Primary Education EOC Religious Center Secondary Education SUB Electrical Substation 94 Senior Center F) Fire Station A Shelter Food Pantry Η Wastewater Pump Fuel W Wastewater Treatment Government Building Well 🔶 Hazardous Material Facility Township Municipal Boundary Hazard Area of Fredon 206 Carbonate Soils - Rail Line Slope > 15% Interstate Wildfire Risk U.S. Route Extreme = State Route Very High Waterbody High Cincol a **New Development** Anticipated Recent The map and data depicted are considered approximate and suitable for most planning purposes. Mapped hazard areas, geographic boundaries and other features depicted may not absolutely align Township of Andover due to the differing resolution of available data. 20 10 Miles Data Sources: NJDOT - 2017; NJ Geographic Information Network - 2014; SC GIS - 2020; DRBC - 2005; NJOGIS - 2020; ESRI 2002/2020; USGS 1999/2014; NJDEP 2009

#### Figure 9.16-3 Town of Newton Hazard Area Extent and Location Map 3





	A	ction W	orkshee	t				
Project Name:	Merriam Avenue Sch	iool Pum	p Facility	7				
Project Number:	2021-Newton-001	2021-Newton-001						
	Ri	sk / Vul	nerabili	ty				
Hazard(s) of Concern:	Flood, Severe Weath	er						
Description of the Problem:		The Merriam Avenue School stormwater pump facility is undersized. This results in increased risk of flooding in the surrounding area that is serviced by the pump facility.						
	Action or Project	ct Intend	ded for I	mplementation				
Description of the Solution:	The Town will upgrade the capacity of Merriam Avenue School stormwater pump facility. The Engineer will design the improvements and the DPW will carry out the upgrades.							
Is this project related to a ( Lifeline?	Critical Facility or	itical Facility or Yes 🛛 No 🗆						
Level of Protection:	TBD by design			ted Benefits avoided):	Stormwater system improved			
Useful Life:	50 years		Goals Met:		2			
Estimated Cost:	High		Mitigation Action Type:		Structure and Infrastructure Project (SIP)			
	Plan	for Imp	blementation					
Prioritization:	High		Desired Timeframe for Implementation:		5 years			
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		HMGP, BRIC, Municipal budget			
Responsible Organization:	Town DPW and Engi	neer	Local Planning Mechanisms to be Used in Implementation if any:		Hazard mitigation, Stormwater management			
	Three Alternatives	Consid	ered (in	cluding No Action)				
	Action		E	stimated Cost	Evaluation			
	No Action			\$0	Current problem continues			
Alternatives:	Replace with new p station	oump	\$500,000		Too expensive			
	Build secondary p station	ump	\$500,000		Expensive, space limited			
	Progress Re	port (fo	r plan m	aintenance)				
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								





Action Worksheet							
Project Name:	Merriam Avenue School	l Pump Facility					
Project Number:	2021-Newton-001						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	0						
Property Protection	1	Reduces stormwater flood risk					
Cost-Effectiveness	1						
Technical	1	The project is technically feasible					
Political	1						
Legal	1	The Town has the legal authority to complete the project					
Fiscal	0	Project requires funding support					
Environmental	1						
Social	1						
Administrative	1						
Multi-Hazard	1	Flood, Severe Weather					
Timeline	0	5 years					
Agency Champion	1	Town DPW and Engineer					
Other Community Objectives	0						
Total	10						
Priority (High/Med/Low)	High						





		Action V	Vorks	sheet					
Project Name:	DPW Garage Storm	DPW Garage Stormwater and Access Upgrades							
Project Number:	2021-Newton-002								
Risk / Vulnerability									
Hazard(s) of Concern:	Flood, Severe Weat	Flood, Severe Weather							
Description of the Problem:		The stormwater management system requires upgrade at the DPW Garage located on Moran Street. The Garage also requires improved access.							
Action or Project Intended	for Implementation	n							
Description of the Solution:	The Engineer will design upgrades to the stormwater management system and access way improvements. The DPW will carry out the work.								
Is this project related to a Critical Facility? Yes 🔀 No									
Level of Protection:	TBD by engineerin	g study		mated Benefits ses avoided):	Access to DPW maintained				
Useful Life:	20 years		Goal	ls Met:	2, 3, 6				
Estimated Cost:	High		Mitigation Action Type:		Structure and Infrastructure Project (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, Town budget				
Responsible Organization:	Town Engineer, DP	W	to be	ll Planning Mechanisms e Used in lementation if any:	Hazard mitigation, Stormwater management				
Three Alternatives Conside		Action)							
	Action			Estimated Cost	Evaluation				
	No Action			\$0	Problem continues.				
Alternatives:	Relocate DPV			High	Costly				
	Close DPW and rel			Low	Relocation/staging of staff				
	staff and equipmen				and equipment takes too				
Progress Report (for plan r	flooding is antici	pated			much time				
Date of Status Report:	namtenancej								
Report of Progress:									
Update Evaluation of the Problem and/or Solution:									

\_\_\_\_



Action Worksheet								
Project Name:	DPW Garage Stormwater	DPW Garage Stormwater and Access Upgrades						
Project Number:	2021-Newton-002	2021-Newton-002						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate						
Life Safety	1	Maintains critical services of DPW						
Property Protection	1	DPW protected from flooding						
Cost-Effectiveness	1							
Technical	1	The project is technically feasible						
Political	1							
Legal	1	The Town has the legal authority to complete the project						
Fiscal	0	Project requires funding support						
Environmental	1							
Social	1							
Administrative	1							
Multi-Hazard	1	Flood, Severe Weather						
Timeline	0	Within 5 years						
Agency Champion	1	Engineer, DPW						
Other Community Objectives	1							
Total	12							
Priority (High/Med/Low)	High							





		Action V	Worksheet						
Project Name:	Municipal Building								
Project Number:	2021-Newton-004								
Risk / Vulnerability									
Hazard(s) of Concern:	Severe Weather, Hu	Severe Weather, Hurricane, Nor'Easter							
Description of the Problem:		The roof of the Newton Municipal Building located on Trinity Street is not designed to withstand high wind.							
Action or Project Intended									
Description of the Solution:		The Engineer will design a new roof to meet current standards for high winds on Newton Municipal Building located on Trinity Street. The Town will then replace the roof.							
Is this project related to a	Critical Facility?	Yes	No 🗌						
Level of Protection:	500-year storm e	event	Estimated Benefits (losses avoided):		Municipal building protected from high winds				
Useful Life:	15 years		Goals Met:		2, 6				
Estimated Cost:	Medium Mitigation Action Type:				Structure and Infrastructure Projects (SIP)				
Plan for Implementation									
Prioritization:	High		Desired Timeframe for	r	Within 5 years				
Estimated Time Required for Project Implementation:	1 year		Implementation: Potential Funding Sources:		FEMA HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Town Budget				
Responsible Organization:	Town Engineer and Administration		Local Planning Mechar to be Used in Implementation if any		Hazard Mitigation, Emergency Management				
Three Alternatives Conside	ered (including No A	Action)							
	Action		Estimated Cost		Evaluation				
Alternatives:	No Action Rebuild facility to standards	new	\$0 High		Problem continues. Costly and not necessary				
		I secondary facility High Costly and not necessary							
Progress Report (for plan i				•					
Date of Status Report:									
Report of Progress:									
Update Evaluation of the Problem and/or Solution:									





	Action Worksheet							
Project Name:	Municipal Building Win	Municipal Building Wind Designs						
Project Number:	2021-Newton-004							
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 storm damage.						
Cost-Effectiveness	1							
Technical	1	The project is technically feasible						
Political	1							
Legal	1	The Town 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, Hurricane, Nor'Easter						
Timeline	0	Within 5 years						
Agency Champion	1	Town Engineer and Administration						
Other Community Objectives	1	Protection of critical services						
Total	12							
Priority (High/Med/Low)	High							





	Action	Worksheet							
Project Name:	Snow Load Improvements at	Snow Load Improvements at Fire House #2							
Project Number:	2021-Newton-005								
Risk / Vulnerability									
Hazard(s) of Concern:		Severe Winter Weather, Nor'Easter							
Description of the Problem:		Fire House #2's roof is not designed with modern snow load standards. Failure of the roof could threaten the critical services of the Fire House.							
Action or Project Intended									
Description of the Solution:		The Engineer will design a new roof to meet current standards for snow load of Fire House #2 located on Woodside Avenue. The Fire Department will then replace the roof.							
Is this project related to a	Critical Facility? Yes	No 🗌							
Level of Protection:	500-year storm event	Estimated Benefits (losses avoided):		Fire House designed to withstand snow load					
Useful Life:	15 years	Goals Met:		1, 2, 6					
Estimated Cost:	Medium	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, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Town Budget					
Responsible Organization:	Town Engineer and Fire Department	Local Planning Mechanis to be Used in Implementation if any:	sms	Hazard Mitigation, Emergency Management					
Three Alternatives Conside	ered (including No Action)								
	Action	Estimated Cost		Evaluation					
Alternatives:	No Action Rebuild facility to new standards	\$0 High		Problem continues. Costly and not necessary					
	Build secondary facility protected to new standards	High Costly and not necessary							
Progress Report (for plan i	maintenance)								
Date of Status Report:									
Report of Progress:									
Update Evaluation of the Problem and/or Solution:									





	Action Worksheet							
Project Name:	Snow Load Improvements at Fire House #2							
Project Number:	2021-Newton-004							
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate						
Life Safety	1	Failure of the roof could threaten the critical services of the Fire House.						
Property Protection	1	Project will protect Fire House #2 from storm damage.						
Cost-Effectiveness	1							
Technical	1	The project is technically feasible						
Political	1							
Legal	1	The Town has the legal authority to complete the project.						
Fiscal	0	Project requires funding support.						
Environmental	1							
Social	1							
Administrative	1							
Multi-Hazard	1	Severe Winter Weather, Nor'Easter						
Timeline	0	Within 5 years						
Agency Champion	1	Town Engineer and Fire Department						
Other Community Objectives	1	Protection of critical services						
Total	12							
Priority (High/Med/Low)	High							





	Action	Worksheet							
Project Name:	Automatic Standby Generato								
Project Number:	2021-Newton-009								
Risk / Vulnerability									
Hazard(s) of Concern:	Severe Weather, Severe Wint	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 Public Works Maintenance Building lacks a backup power source.							
Action or Project Intended									
Description of the Solution:	will then purchase and install	The Engineer will research what size generators are needed to power each facility. The Town will then purchase and install the selected generators and necessary electrical components to supply backup power to the facilities.							
Is this project related to a	Critical Facility? Yes	No 🗌							
Level of Protection:	N/A	Estimated Benefits (losses avoided):		Ensures continuity of operations of critical facilities					
Useful Life:	20 years	Goals Met:		1, 2, 6					
Estimated Cost:	\$50,000 per generator	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 Source	ces:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget					
Responsible Organization:	Engineer, OEM	Local Planning Mechani to be Used in Implementation if any:	isms	Hazard Mitigation, Emergency Management					
Three Alternatives Conside									
	Action	Estimated Cost		Evaluation					
Alternatives:	No Action Install solar panels	\$0 \$100,000	amo	Problem continues. ather dependent; need large unt of space for installation; spensive if repairs needed					
	Install wind turbines	Weather dependent; poses a three							
Progress Report (for plan	maintenance)								
Date of Status Report:									
Report of Progress:									
Update Evaluation of the Problem and/or Solution:									





Action Worksheet							
Project Name:	Automatic Standby Generators at Critical Facilities						
Project Number:	2021-Newton-009						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Project will protect critical services of critical facilities.					
Property Protection	1	Project will protect facilities from power loss.					
Cost-Effectiveness	1						
Technical	1						
Political	1						
Legal	1	The Town 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	Engineer, OEM					
Other Community Objectives	1						
Total	12						
Priority (High/Med/Low)	High						





# 9.17 BOROUGH OF OGDENSBURG

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

# 9.17.1 Hazard Mitigation Planning Team

The following individuals are the Borough of Ogdensburg's identified HMP update primary and alternate points of contact and NFIP Floodplain Administrator.

Primary P	oint of Contact	Alternate Point of Contact		
NFIP Floodplain Admini Name / Title: Mike Vreelar				
Address: 14 Highland Avenue, Ogdensburg, NJ 07439 Phone Number: 862-284-1100 Email: mvreeland@vancleefengineering.com				
Name	Title	Method of Participation		
Richard Keslo	Emergency Management	Primary point of contact; attended the municipal kickoff meeting; reviewed annex*		
George P. Hutnick	Mayor	Alternate point of contact; reviewed annex*		
Mike Vreeland	Borough Engineer	NFIP floodplain administrator; reviewed annex*		
Michael Marceali	Fiscal/CFO	Reviewed annex*		
Leigh Witty	Construction Official	Reviewed annex*		
Chris Ross	Public Works	Reviewed annex*		
Stephen Gordon	Chief of Police	Reviewed annex*		
Eric Slater	Fire Chief	Reviewed annex*		

## Table 9.17-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.

## 9.17.2 Jurisdiction Profile

The Borough of Ogdensburg is located in eastern Sussex County. It bordered to the north by Franklin Borough, to the east by Sparta Township and Hardyston Township, and to the south and west by Sparta Township. The Borough has a total area of approximately 2.3 square miles. South Ogdensburg is an unincorporated community located within the Borough. The Wallkill River and its tributaries flow through the Borough. Heaters Pond is large pond that is located along the Borough's eastern border.

According to the U.S. Census, the 2010 population for the Borough of Ogdensburg was 2,410. The estimated 2018 population was 2,314, a 4.0 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 3.6 percent of the population is 5 years of age or younger and 15.9 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.





# 9.17.3 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 9.16-2 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.

Type of Development	2015		2016		2017		2018		2019	
Number	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	1	0	1	0	1	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 # of Units / Development Structures		<b>Location</b> (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
	Recent	Major De	velopmer	nt and Inf	rastruct	ure from 2	2015 to P	resent		
Interstate Industrial	Commo	ercial	1		Block 21 Lot 10 & 12.01		None		Under	
Management	Site Pla	an							Construction	
Known or A	nticipat	ed Major	Develop	ment and	Infrastr	ucture in t	he Next	Five (5) Y	ears	
	None anticipated									

## Table 9.17-2. Recent and Expected Future Development

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

# 9.17.4 Capability Assessment

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

		Authority that enforces /e (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)			If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
Comment: • State mandated on local level under Adopted 9/3/2019 • The Borough is responsible for this		Ū.	ruction Code Act		
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<ul> <li>Power to zone, requires all jurisdict has adopted the land use element an</li> <li>The Borough is responsible for this</li> </ul>	ıd master plan.	-	-	ances after the pl	-
• The Ordinance notes the objective to	o secure safety from fir	re, flood, panic, and oth		ıanmade disaster	:
Subdivisions	o secure safety from fir Yes	re, flood, panic, and oth Local	er natural and n Yes – if municipality has a Planning Board	nanmade disaster Yes	-
Subdivisions	Yes 55D-37. Grant of pow ace require approval of thy recording officer an it for any development be exempt from such s at of the planning boar 53b. of this act . Dictat g a county planning boo urd and for the approva- his section.	Local er; referral of proposea f subdivision plats by re ad approval of site plans c, except that subdivision ite plan review and app d whenever the board o ed by the Municipal Lai ard shall provide for th al of those subdivisions of	Yes – if municipality has a Planning Board I ordinance; cou solution of the p s by resolution of n or individual la roval; provided f adjustment has nd Use Law. NJ e review of all s	Yes nty planning boa. lanning board as f the planning bo to applications for that the resolution jurisdiction over Statute 40:27-6.2 ubdivisions of lan	rd approval a. a condition fo ard as a r detached one n of the board c a subdivision c the board of ad within the
Subdivisions Comment: • P.L.1975, c.291 (C.40:55D-47): 40: The governing body may by ordinan the filing of such plats with the coun condition for the issuance of a perm or two dwelling-unit buildings shall of adjustment shall substitute for the or site plan pursuant to subsection 6 commissioners of any county having county by said county planning boa set forth and limited hereinafter in the	Yes 55D-37. Grant of pow ace require approval of thy recording officer an it for any development be exempt from such s at of the planning boar 53b. of this act . Dictat g a county planning boo urd and for the approva- his section.	Local er; referral of proposea f subdivision plats by re ad approval of site plans c, except that subdivision ite plan review and app d whenever the board o ed by the Municipal Lai ard shall provide for th al of those subdivisions of	Yes – if municipality has a Planning Board I ordinance; cou solution of the p s by resolution of n or individual la roval; provided f adjustment has nd Use Law. NJ e review of all s	Yes nty planning boa. lanning board as f the planning bo to applications for that the resolution jurisdiction over Statute 40:27-6.2 ubdivisions of lan	rd approval a. a condition fo ard as a r detached one n of the board c a subdivision c the board of ad within the
Subdivisions Comment: P.L.1975, c.291 (C.40:55D-47): 40: The governing body may by ordinan the filing of such plats with the coun condition for the issuance of a perm or two dwelling-unit buildings shall of adjustment shall substitute for the or site plan pursuant to subsection to commissioners of any county having county by said county planning boa set forth and limited hereinafter in ta The Borough is responsible for this Stormwater Management Comment: • See Title 7 of the NJ Administrative	Yes 55D-37. Grant of pow ace require approval of ity recording officer an it for any development be exempt from such s at of the planning boar 53b. of this act . Dictat g a county planning boar is section. code in compliance wi Yes Code, N.J.A.C. 7:8	Local er; referral of proposea f subdivision plats by re ad approval of site plans , except that subdivision ite plan review and app d whenever the board o ed by the Municipal Lar ard shall provide for th al of those subdivisions th Land Development. Local	Yes – if municipality has a Planning Board l ordinance; cou solution of the p s by resolution of n or individual la roval; provided f adjustment has and Use Law. NJ e review of all s affecting county Yes	Yes nty planning boad lanning board as f the planning board to applications for that the resolution that the resolution tradition over Statute 40:27-6.2 ubdivisions of land road or drainag Yes	rd approval a. a condition fo ard as a r detached one n of the board c a subdivision c the board of ad within the
Subdivisions Comment: P.L.1975, c.291 (C.40:55D-47): 40: The governing body may by ordinam the filing of such plats with the coun condition for the issuance of a perm or two dwelling-unit buildings shall of adjustment shall substitute for tha or site plan pursuant to subsection 0 commissioners of any county having county by said county planning boa set forth and limited hereinafter in t The Borough is responsible for this Stormwater Management Comment: See Title 7 of the NJ Administrative The DPW is responsible for this ord	Yes 55D-37. Grant of pow ace require approval of ity recording officer an it for any development be exempt from such s at of the planning boar 53b. of this act . Dictat g a county planning boar is section. code in compliance wi Yes Code, N.J.A.C. 7:8	Local er; referral of proposea f subdivision plats by re ad approval of site plans , except that subdivision ite plan review and app d whenever the board o ed by the Municipal Lar ard shall provide for th al of those subdivisions th Land Development. Local	Yes – if municipality has a Planning Board l ordinance; cou solution of the p s by resolution of n or individual la roval; provided f adjustment has and Use Law. NJ e review of all s affecting county Yes	Yes nty planning boad lanning board as f the planning board to applications for that the resolution that the resolution tradition over Statute 40:27-6.2 ubdivisions of land road or drainag Yes	rd approval a. a condition fo ard as a r detached one n of the board c a subdivision c the board of ad within the
Subdivisions Comment: P.L.1975, c.291 (C.40:55D-47): 40: The governing body may by ordinan the filing of such plats with the coun condition for the issuance of a perm or two dwelling-unit buildings shall of adjustment shall substitute for the or site plan pursuant to subsection to commissioners of any county having county by said county planning boa set forth and limited hereinafter in ta The Borough is responsible for this Stormwater Management Comment: • See Title 7 of the NJ Administrative	Yes 55D-37. Grant of pow the require approval of the recording officer and it for any development be exempt from such s at of the planning boar 63b. of this act . Dictat g a county planning boar rd and for the approve his section. code in compliance wi Yes Code, N.J.A.C. 7:8 linance in compliance	Local er; referral of proposea f subdivision plats by re ad approval of site plans , except that subdivision ite plan review and app d whenever the board o ed by the Municipal Lar ard shall provide for th al of those subdivisions th Land Development. Local	Yes – if municipality has a Planning Board l ordinance; cou solution of the p s by resolution of n or individual l proval; provided f adjustment has nd Use Law. NJ e review of all s affecting county Yes	Yes nty planning boad lanning board as f the planning bo t applications for that the resolution jurisdiction over Statute 40:27-6.2 ubdivisions of lan proad or drainag Yes Yes	rd approval a. a condition fo ard as a r detached one n of the board c a subdivision c the board of ad within the

# Table 9.17-3. Planning, Legal and Regulatory Capability





		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
		Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
improvements, fees for services and amenities, the t and police, as well as any hazards, risks or nuisanc			offered, its proxi	mity to hospitals,	schools, fire
Growth Management	No	-	Yes – if municipality has a Planning Board	-	-
Comment: • State Mandated on a municipal level. Se Redevelopment Plan provides for the dev of state environmental regulations make	lineation of Growt	h Areas and Environs;	Use of the endor management st	rsed plans in the i	
Site Plan Review	Yes	County & Local	Yes – if municipality has a Planning Board	Yes	-
planning boards shall have a complete for municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands au boundary, or proposed facilities or public given to the county planning board at let a copy of the official notice of the public	y planning board a notify the county djoining county re ic lands shown on ast 10 days prior t	copy of the planning a planning board of the in pads or other county lan the county master plan o the public hearing the	nd zoning ordina ntroduction of a nds, or lands lyin n or official coun preon by persona	ances of the muni ny revision or an ng within 200 feet ty map. Such no	cipality in effect aendment of t of a municipal tice shall be
Environmental Protection	Yes	Local	No	Yes	-
Community.					
Comment: • The Borough is responsible for this code • The Ordinance notes the objective to pro-				h.	
The Borough is responsible for this code     The Ordinance notes the objective to pro Flood Damage Prevention				h. Yes	2021- Ogdensburg- 004
The Borough is responsible for this code     The Ordinance notes the objective to pro Flood Damage Prevention	Yes Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review e. Regulations for ible for Chapter 20	entally sensitive portion Local 4-52) and the National do not require local add ed for compliance with r the Flood Control Haz ) Flood Damage Preven	s of the Boroug Yes Flood Control A option but as eny these regulation zards Act were a ntion.	Yes Ict of 1968 (NFIF forced by the NJL as. In addition, p.	Ogdensburg- 004 e) are state and DEP, the articipation in
<ul> <li>The Borough is responsible for this code</li> <li>The Ordinance notes the objective to preserve the objective to preserve the objective of the</li></ul>	Yes Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review e. Regulations for ible for Chapter 20	entally sensitive portion Local 4-52) and the National do not require local add ed for compliance with r the Flood Control Haz ) Flood Damage Preven	s of the Boroug Yes Flood Control A option but as eny these regulation zards Act were a ntion.	Yes Ict of 1968 (NFIF forced by the NJL as. In addition, p.	Ogdensburg- 004 e) are state and DEP, the articipation in
<ul> <li>The Borough is responsible for this code</li> <li>The Ordinance notes the objective to pre</li> </ul> Flood Damage Prevention Comment: <ul> <li>The NJ State Law Flood Area Control A federal acts to support minimization of f. floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016.</li> <li>The Engineering Department is responsis</li> <li>The Flood Damage Prevention Ordinance</li> </ul>	Yes Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review e. Regulations for ible for Chapter 20 ce lacks the state r	entally sensitive portion Local 4-52) and the National do not require local add ed for compliance with r the Flood Control Haz ) Flood Damage Preven	s of the Boroug Yes Flood Control A option but as eny these regulation cards Act were a ntion. nuirement.	Yes let of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a	Ogdensburg- 004 () are state and DEP, the articipation in nd amended
The Borough is responsible for this code     The Ordinance notes the objective to pro Flood Damage Prevention Comment:     The NJ State Law Flood Area Control A     federal acts to support minimization of fr     floodplain ordinances of each municipal     the NFIP requires a floodplain ordinance     effective June 20, 2016.     The Engineering Department is response     The Flood Damage Prevention Ordinance Wellhead Protection Comment: Emergency Management	Yes Yes ct (N.J.S.A. 58:16. lood losses. They lity must be review e. Regulations for ible for Chapter 20 ce lacks the state r	entally sensitive portion Local 4-52) and the National do not require local add ed for compliance with r the Flood Control Haz ) Flood Damage Preven	s of the Boroug Yes Flood Control A option but as eny these regulation cards Act were a ntion. nuirement.	Yes let of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a	Ogdensburg- 004 9) are state and DEP, the articipation in nd amended
The Borough is responsible for this code     The Ordinance notes the objective to pro Flood Damage Prevention Comment:     The NJ State Law Flood Area Control A     federal acts to support minimization of f.     floodplain ordinances of each municipal     the NFIP requires a floodplain ordinance     effective June 20, 2016.     The Engineering Department is response     The Flood Damage Prevention Ordinance Wellhead Protection Comment: Emergency Management	Yes Ct (N.J.S.A. 58:16. Tood losses. They lity must be review review. Regulations for tible for Chapter 20 ce lacks the state r No Yes the role of the Pol.	entally sensitive portion Local 4-52) and the National do not require local add ed for compliance with r the Flood Control Haz D Flood Damage Preven nandated freeboard req Local ice Department in the B	s of the Boroug Yes Flood Control A option but as enj these regulation cards Act were a ntion. wirement. No No Rorough.	Yes let of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a - Yes	Ogdensburg- 004 2) are state and DEP, the articipation in nd amended -
The Borough is responsible for this code     The Ordinance notes the objective to preserve to objective to preserve to preserve the objective to preserve to preserve the objective to preserve to an	Yes Ct (N.J.S.A. 58:16. Tood losses. They lity must be review review. Regulations for tible for Chapter 20 ce lacks the state r No Yes the role of the Pol.	entally sensitive portion Local 4-52) and the National do not require local add ed for compliance with r the Flood Control Haz D Flood Damage Preven nandated freeboard req Local ice Department in the B	s of the Boroug Yes Flood Control A option but as enj these regulation cards Act were a ntion. wirement. No No Rorough.	Yes let of 1968 (NFIF forced by the NJI is. In addition, p dopted in 2007 a - Yes	Ogdensburg- 004 () are state and DEP, the articipation in nd amended -
The Borough is responsible for this code     The Ordinance notes the objective to pro Flood Damage Prevention Comment:     The NJ State Law Flood Area Control A     federal acts to support minimization of f     floodplain ordinances of each municipal     the NFIP requires a floodplain ordinance     effective June 20, 2016.     The Engineering Department is response     The Flood Damage Prevention Ordinance Wellhead Protection Comment: Emergency Management Comment:     Chapter 3 Police Regulations discusses     Chapter 13 Fire Prevention and Protect	Yes Ct (N.J.S.A. 58:16. Cod losses. They Ct (N.J.S.A. 58:16. Cod losses. They Ct must be review Ct Regulations for Chapter 20 Ct lacks the state r No Yes Ct lacks the state r No Yes Ct res Ct	entally sensitive portion Local 4-52) and the National do not require local add ed for compliance with r the Flood Control Haz D Flood Damage Preven nandated freeboard req Local ice Department in the B	s of the Boroug Yes Flood Control A option but as eny these regulation cards Act were a ntion. uirement. No No Sorough. Department in j	Yes (ct of 1968 (NFIF forced by the NJL as. In addition, p. dopted in 2007 a - Yes fire prevention ac	Ogdensburg- 004 2) are state and DEP, the articipation in nd amended - - tivities.
The Borough is responsible for this code     The Ordinance notes the objective to pre Flood Damage Prevention Comment:     The NJ State Law Flood Area Control A     federal acts to support minimization of f     floodplain ordinances of each municipal     the NFIP requires a floodplain ordinance     effective June 20, 2016.     The Engineering Department is response     The Flood Damage Prevention Ordinane Wellhead Protection Comment:     Comment:     Chapter 3 Police Regulations discusses     Chapter 13 Fire Prevention and Protect Climate Change Comment:	Yes Ct (N.J.S.A. 58:16. Cod losses. They Ct (N.J.S.A. 58:16. Cod losses. They Ct must be review Ct Regulations for Chapter 20 Ct lacks the state r No Yes Ct lacks the state r No Yes Ct res Ct	entally sensitive portion Local 4-52) and the National do not require local add ed for compliance with r the Flood Control Haz D Flood Damage Preven nandated freeboard req Local ice Department in the B	s of the Boroug Yes Flood Control A option but as eny these regulation cards Act were a ntion. uirement. No No Sorough. Department in j	Yes (ct of 1968 (NFIF forced by the NJL as. In addition, p. dopted in 2007 a - Yes fire prevention ac	Ogdensburg- 004 2) are state and DEP, the articipation in nd amended - - tivities.
The Borough is responsible for this code     The Ordinance notes the objective to pre Flood Damage Prevention Comment:     The NJ State Law Flood Area Control A     federal acts to support minimization of f     floodplain ordinances of each municipal     the NFIP requires a floodplain ordinance     effective June 20, 2016.     The Engineering Department is response     The Flood Damage Prevention Ordinane Wellhead Protection Comment:     Chapter 3 Police Regulations discusses     Chapter 13 Fire Prevention and Protect Climate Change Comment:	Yes Ct (N.J.S.A. 58:16. Cod losses. They Ct (N.J.S.A. 58:16. Cod losses. They Ct (N.J.S.A. 58:16. Cod losses. They Cod losses. They Cod losses. Cod lo	entally sensitive portion Local 4-52) and the National do not require local add ed for compliance with the Flood Control Haz Flood Damage Preven nandated freeboard req Local Local ice Department in the B of the Ogdensburg Fire	s of the Boroug Yes Flood Control A option but as eny these regulation cards Act were a ntion. uirement. No No Porough. Department in j No	Yes (ct of 1968 (NFIF forced by the NJL as. In addition, p dopted in 2007 a - Yes fire prevention ac -	Ogdensburg- 004 2) are state and DEP, the articipation in nd amended - - - tivities. -
The Borough is responsible for this code     The Ordinance notes the objective to preserve of the NJ State Law Flood Area Control A federal acts to support minimization of fully floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016.     The Engineering Department is response The Flood Damage Prevention Ordinance of the NFIP requires a floodplain ordinance effective June 20, 2016.     The Engineering Department is response The Flood Damage Prevention Ordinance of the NFIP requires a floodplain ordinance of the NFIP req	Yes Ct (N.J.S.A. 58:16. Cod losses. They Ct (N.J.S.A. 58:16. Cod losses. They Ct (N.J.S.A. 58:16. Cod losses. They Cod losses. They Cod losses. Cod lo	entally sensitive portion Local 4-52) and the National do not require local add ed for compliance with the Flood Control Haz Flood Damage Preven nandated freeboard req Local Local ice Department in the B of the Ogdensburg Fire	s of the Boroug Yes Flood Control A option but as eny these regulation cards Act were a ntion. uirement. No No Porough. Department in j No	Yes (ct of 1968 (NFIF forced by the NJL as. In addition, p dopted in 2007 a - Yes fire prevention ac -	Ogdensburg- 004 2) are state and DEP, the articipation in nd amended - - - tivities. -





		Authority that		been integra	ts of the HMP nted into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Other:	No	-	No	-	-
Comment:					
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
the county. The master plan of a county show the county planning board's recor- among other things, the general locatio developments, parkways, playgrounds, the general location and extent of fores. water supply, sanitary and drainage fa important to the development of the cou- municipalities within the county in any advise the board of chosen commission. expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be	nmendations for th on, character, and of forests, reservation ts, agricultural are cilities, or the proto inty. The county plo matters whatsoever ers with respect to I Land Use Law (M and requires that	e development of the te extent of streets or road ns, parks, airports, and as, and open-developm ection of urban develop unning board shall enco r which may concern tha the formulation of devel (LUL) L. 1975, s. 2, eff. each municipality prepo	rritory covered s, viaducts, brid other public wa ent areas for pu ment, and such urage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla	by the plan, and r ges, waterway ar ys, grounds, place poses of conserv other features as eration of the loc county master pl s and budgets for 55D-28 provides n and update it e	nay include, nd waterfront es and spaces; ation, food and may be al lan and to or capital the required wery 6 years.
The Borough Council is responsible for		as adopted in Decembe			
Capital Improvement Plan	No	-	No	-	-
Comment:					
Disaster Debris Management Plan	No	-	No	-	-
Comment:	1	1			
Floodplain or Watershed Plan	Yes	Local	No	Yes	-
Comment: The Borough Council is responsible for	this plan. The Bor	ough has identified floo	od areas mappea		
Stormwater Management Plan Comment:	Yes	Local	Yes	Yes/No	Yes/No
The Stormwater Management rules (N the required components of regional and design and performance standards for r include groundwater recharge, runoff q consideration, the use of nonstructural impervious surfaces, minimizing the use requirements for groundwater recharge of major development to be located with without prior authorization from the De The Borough Council is responsible for Stammator Palvation Program.	d municipal stormy new (proposed) dev uantity controls, au stormwater manag e of stormwater ning hin or to discharge epartment under the this plan in compl	water management plan velopment. The design a nd runoff quality contro ement techniques inclua es, preserving natural a ff quantity control, storn runoff from the major a e Flood Hazard Area Co	s and establish t nd performance ls. The rules em ling minimizing lrainage feature nwater runoff qu levelopment into ontrol Act Rules,	he stormwater m standards for ne phasize, as a prin disturbance, min s, etc. The rules a uality control, and a 300-foot ripar NJ.A.C. 7:13.	anagement w development nary imizing tlso set forth ł the prohibition ian zone
Stormwater Pollution Prevention Plan			Vac		
	No	-	1 05	-	-
Comment: • The Phase II New Jersey Pollutant Disc 7:14A) were published in the February associated with existing stormwater run as required under the Federal Clean W operate small municipal separate storm municipalities, certain public complexe or maintain highways. The permit prog nonpoint source pollutant loads from th ordinances (litter control, pet waste, wi management plan and implementing or basin cleaning); implementing solids an education component.	charge Elimination 2, 2004, NJ Regist 10ff. The NJPDES 1 ater Act. These NJ 10 sewer systems, kn 10 sewer systems, kn 10 sewer systems, kn 10 sewer systems, kn 10 sewer systems 10 sewer systems	er. These NJPDES rules rules establish a regulat PDES rules govern the i own as MS4s. Under thi es and hospitals, and Si Statewide Basic Require tatewide Basic Requiren er waste disposal, etc.), ng certain maintenance	gulation Prograu s are intended to ory program for issuance of pern is program, pern tate, interstate a rements that mu. nents include mu the developmen activities (such	address and red existing stormwe hits to entities that nits must be secur nd federal agencies to be implemented easures such as: to nt of a municipal as street sweepin	uce pollutants ater discharges t own or red by es that operate d to reduce the adoption of stormwater g and catch



				Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment:		1		1	
Habitat Conservation Plan	No	-	No	-	-
Comment:	-				
Economic Development Plan	No	-	No	-	-
Comment:					
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment: • NJ Coastal Area Facility Review Act (N including construction, relocation, and structures, and site preparation. This la Community Wildfire Protection Plan	enlargement of bui	ildings or structures, an	nd excavation, gr	ading, shore pro	tection
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:					
The Borough Council is responsible for Response/Recovery Planning	this plan in compl	iance with the Master F	lan.		
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-
Comment: Each county and municipality in the State necessary to implement the plan. Each 1 Emergency Planning Guidelines have by subsequent scheduled review of the State The Borough Council is responsible for	Emergency Operat een adopted by the e Emergency Oper	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c	ted no later than ency Managemen 222, s.19.	n one year after th at and shall be eve	he State aluated at such
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	County	No	Yes	-
Comment:	N-	[	N'-		
Post-Disaster Recovery Plan	No	-	No	-	-
Comment:					
Continuity of Operations Plan	Yes	County	No	Yes	-



		Authority that		Authority that		been integra	s of the HMP ited into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.		
Comment:							
Public Health Plan	Yes	County	No	Yes	-		
Comment:							
Other: Strategic Recovery Planning Report	Yes	Local	No	Yes	-		
Comment:		•					

• The Borough Council is responsible for this report in compliance with Strategic Growth Plan, February 2005.

## Table 9.17-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	No
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

#### **ADMINISTRATIVE AND TECHNICAL CAPABILITY**

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

#### Table 9.17-5. 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	No	-				
Open Space Board / Committee	No	-				
Economic Development Commission / Committee	No	-				
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Fire Department whistle				
Maintenance program to reduce risk	Yes	Public Works				
Mutual aid agreements	Yes	County, neighboring municipalities				
Technical/Staffing Capability						
Planners or engineers with knowledge of land development and land management practices	Yes	Borough Engineer				
Engineers or professionals trained in building or infrastructure construction practices	No	-				
Planners or engineers with an understanding of natural hazards	Yes	Borough Engineer				
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	Contracted				





Staff/Personnel Resource	Available?	Department/Agency/Position
Stormwater engineer	Yes	Borough Engineer
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	Richard Kelso
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	Yes	Borough Engineer
Resilience Officer	No	-
Other: Professionals trained in conducting damage assessments	Yes	Borough Engineer

## FISCAL CAPABILITY

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

#### Table 9.17-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes
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	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Clean Water Act 319 Grants (Nonpoint Source Pollution)	Yes
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 Ogdensburg.

#### Table 9.17-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes, Mayor and OEM Coordinator
Do you have personnel skilled or trained in website development?	Yes, outside contractor
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	No
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.	Yes, Board reappointed at mayor and council reorganization meeting





Criterion	Response
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, briefly describe.	No

#### **COMMUNITY CLASSIFICATIONS**

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

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (Fire ISO Protection Class)	No	-	-
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	No	-	-

#### Table 9.17-8. Community Classifications

#### 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 9.17-9. 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	Weak
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.





Climate change is not currently integrated into current policies/plans or actions (projects/monitoring) within the municipality but the administration is supportive of integrating climate change in the future.

#### NATIONAL FLOOD INSURANCE PROGRAM

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

#### Table 9.17-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Engineer
Who is your floodplain administrator? (name, department/position)	Mike Vreeland, P.E., Engineer
Are any certified floodplain managers on staff in your jurisdiction?	Yes, Office of Borough Engineer
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 minimum requirements.
When was the most recent Community Assistance Visit or Community Assistance Contact?	2010
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 if it were offered and if authorized by the Borough's governing body. The FPA indicated that the Borough's Emergency Management Coordinator and DPW Supervisor would possible attend the training as well.
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
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	11 policies \$3,719,000 insurance in force \$8,879 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	9 claims \$49,122 in payments
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 Source: FEMA 2020





#### ADDITIONAL AREAS OF EXISTING INTEGRATION

• No additional areas of integration; refer to the Capability Assessment.

#### **OPPORTUNITIES FOR FUTURE INTEGRATION**

• Flood Damage Prevention Ordinance: The Borough will update the Flood Damage Prevention Ordinance to include freeboard (2021-Ogdensburg-004).

## 9.17.5 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 Ogdensburg'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 9.16-11 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.

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 <sup>rd</sup> and 24th.	Although the County was impacted, the Borough 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 Borough had approximately \$15,070 in unanticipated expenses due to Coronavirus Response. The Borough applied for and received \$13,671.00 in aid from the State LGEF Grant. Additionally, Borough revenue collections were down from prior years.

## Table 9.17-11. Hazard Event History

Source: FEMA 2020, NOAA NCEI 2020

## 9.17.6 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 Ogdensburg 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 Ogdensburg 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 Ogdensburg has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

The following summarizes the repetitive and severe repetitive flood losses in the Borough of Ogdensburg.

- Number of repetitive loss (RL) properties: 2
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

Source: FEMA 2019

Note: The number of SRL properties excludes RL properties.

#### **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 9.17-12. Critical Facilities and Lifelines Flood Exposure

		Expo	sure
Name	Туре	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 Borough has two repetitive loss properties.
- Ogdensburg Public School requires backup power.
- Ogdensburg Fire House requires backup power.
- The Borough's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.
- The Borough is seeking to establish the First Aid Squad building as an emergency warming station. Upgrades will be needed to the facility to meet these needs.

#### 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 Ogdensburg 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 Ogdensburg. The Borough of Ogdensburg 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 Ogdensburg agreed with the calculated hazard rankings.





	Dam Failure	Disease Outbre	ak Drought	Earth	quake	Flood		Geologic
	Medium	Medium	Medium	L	w	Medium		Low
_								
	Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter		vere ather	Severe Winter Weather	Wildfire
	Medium	High	Medium	High	Н	igh	High	Low

#### Table 9.17-13. Borough of Ogdensburg Hazard Ranking

## 9.17.7 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 9.16-15 and Table 9.16-16 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 9.17-14. Status of Previous HMP Mitigation Actions

			Status (In Progress, No		the 2021 HMP date?
2016 Action Number Action Description		Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Ogdensburg- 1 (old #4)	Implement the engineering study conducted on Heaters Pond – armor the dam on the pond and stabilize the bank of Heaters Pond.	Engineering, Borough administration	Complete		
Ogdensburg- 2 (new)	Upgrade the emergency warning system in the Borough, including additional fire sirens.	Fire Department, OEM	Complete		
Ogdensburg- 3 (new)	Implement Reverse 911 system for the Borough	OEM, Township Administration	Complete		
Ogdensburg- 4 (new)	Implement a debris clearing program of the Wallkill River and Saw Mill Brook	Engineering and DPW, working with contractors and local utilities	Complete		
Ogdensburg- 5 (old #9)	Continue to enhance and develop the Borough's public outreach and education programs for hazard mitigation and preparedness.	Elected Official's Office	Ongoing Capability		
Ogdensburg- 6 (revised old #3)	Ensure continuity of operations at critical facilities. At this time the following is identified: purchase and install backup generators at	Engineering, OEM	In Progress	Х	2021- Ogdensburg- 001, 2021- Ogdensburg- 002





			Status (In Progress, No	Include in the 2021 HMP Update?		
2016 Action	2016 Action Number Action Description		Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #	
	<ul> <li>the following critical</li> <li>facilities:</li> <li>First Aid Squad</li> <li>Meadow Road pump station</li> <li>Fire Department</li> </ul>					
Ogdensburg- 7	Stream bank stabilization (vegetation addition) on Middle Sawmill Brook from RR tracks to Route 517.	Engineering, Borough Administration	Complete			
Ogdensburg- 8 (revised old #1)	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood- proofing) or acquisition/relocation to protect structures from future damage, with repetitive loss and severe repetitive loss properties as a priority when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option. Phase 2: Work with the property owners to implement selected action based on available funding and local match availability.	Engineering via NFIP FPA with NJOEM, FEMA support	In Progress	Х	2021- Ogdensburg- 003	

In addition to the above progress, the Borough of Ogdensburg 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 Ogdensburg 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 Ogdensburg 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 9.16-15 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Ogdensburg 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 9.16-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.17-15	. Proposed	Hazard	<b>Mitigation</b>	Initiatives
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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- Ogdensbu rg-001	Ogdensburg Public School Backup Power	<ul> <li>Problem: Backup power sources are necessary to maintain critical services for critical facilities. The Ogdensburg Public School (100 Main St, Ogdensburg, NJ 07439) requires a backup power source. The school is a K-8 school and would serve as a shelter in place shelter during a sudden hazard event.</li> <li>Solution: The Engineer will research what size generator is needed to power the Ogdensburg Public School. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the Ogdensburg Public School.</li> <li>In addition, the School will update the shower fixtures in the locker rooms and purchase cots to meet sheltering needs.</li> </ul>	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	1	Engineer, School District, OEM	FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Municipal Budget	Ensure s continu ity of operati ons of Ogden sburg Fire House	\$60,0 00	Wi thi 5 ye ars	Hig h	SIP	ES
2021- Ogdensbu rg-002	Ogdensburg Fire House Backup Power	<ul> <li>Problem: Backup power sources are necessary to maintain critical services for critical facilities. The Ogdensburg Fire Department (718 Ford St, Ogdensburg, NY 13669) requires a backup power source.</li> <li>Solution: The Engineer will research what size generator is needed to power the Ogdensburg Fire House. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the Ogdensburg Fire House.</li> </ul>	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	1	Engineer, Fire Department , OEM	FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Assistance to Firefighters Grant Program, Municipal Budget	Ensure s continu ity of operati ons of Ogden sburg Fire House	\$50,0 00	Wi thi 5 ye ars	Hig h	SIP	SP
	Repetitive Loss Mitigation	<b>Problem</b> : Frequent flooding events have resulted in damages to residential	Existing		2	NFIP Floodplain	FEMA HMGP and	Elimin ates			Hig h	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
2021- Ogdensbu rg-003		<ul> <li>properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has 2 repetitive loss properties but other properties may be impacted by flooding as well.</li> <li>Solution: Conduct outreach to 10 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas). Areas of focus will include floodprone locations such as Predmore Road, Center Street, Richardville, Brooks Flat and Edison Avenue.</li> </ul>		Flood, Severe Weather		Administrat or, supported by homeowner s	FMA, local cost share by residents	flood damag e to homes and residen ts, creates open space for the munici pality increas ing flood storage	\$1 Milli on	3 ye ars			
2021- Ogdensbu rg-004	Flood Damage Prevention Ordinance Update	<ul> <li>Problem: The Borough's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.</li> <li>Solution: The Borough will update the Flood Damage Prevention Ordinance to include the freeboard requirement.</li> </ul>	New	Flood	2	FPA, Administrat ion	Township budget	Meet state standar ds, reduce future flood risk	Staff time	6 m on ths	Hig h	LPR	PR
2021- Ogdensbu rg-005	Establish First Aid Squad Building as Emergency Warming Station	<ul> <li>Problem: The Borough is seeking to establish the First Aid Squad building as an emergency warming station.</li> <li>Upgrades will be needed to the facility to meet these needs.</li> <li>Solution: The Borough will complete the following upgrades to the First Aid Squad building to allow for use as an emergency warming station:</li> </ul>	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter , Flood	1	Engineer, OEM	FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt	Establi sh warmi ng station	\$100, 000	5 ye ars	Hig h	SIP	PP, ES, SP





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution  Installation of a backup generator Roadway and drainage improvements to maintain access in flooding events	New or Existing Assets?	Hazard(s ) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources Performanc e Grants (EMPG) Program, Municipal	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2021-	Disaster Debris	Problem: The Borough lacks a Disaster Debris Management Plan to address post disaster cleanup.				OEM,	Budget	Increas ed disaste		1			
Ogdensbu rg-006	Disaster Debris Management Plan	<b>Solution:</b> The Borough will develop and adopt a Disaster Debris Management Plan.	New and Existing	All Hazards	6	Public Works	Borough budget	r respon se capabil ities	Staff time	ye ar	Hig h	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

<u>Cost:</u> 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 9.17-16.	Summary	of Evaluation	and Action	<b>Priorities</b>
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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- Ogdensburg- 001	Ogdensburg Public School Backup Power	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Ogdensburg- 002	Ogdensburg Fire House Backup Power	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Ogdensburg- 003	Repetitive Loss Mitigation	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2021- Ogdensburg- 004	Flood Damage Prevention Ordinance Update	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2021- Ogdensburg- 005	Establish First Aid Squad Building as Emergency Warming Station	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Ogdensburg- 006	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.





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

Table 9.17-17.	<b>Analysis of Mitigation</b>	Actions by Hazard and	d Category
	mary 515 of Miligacion	nectons by mazara an	a outegory

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



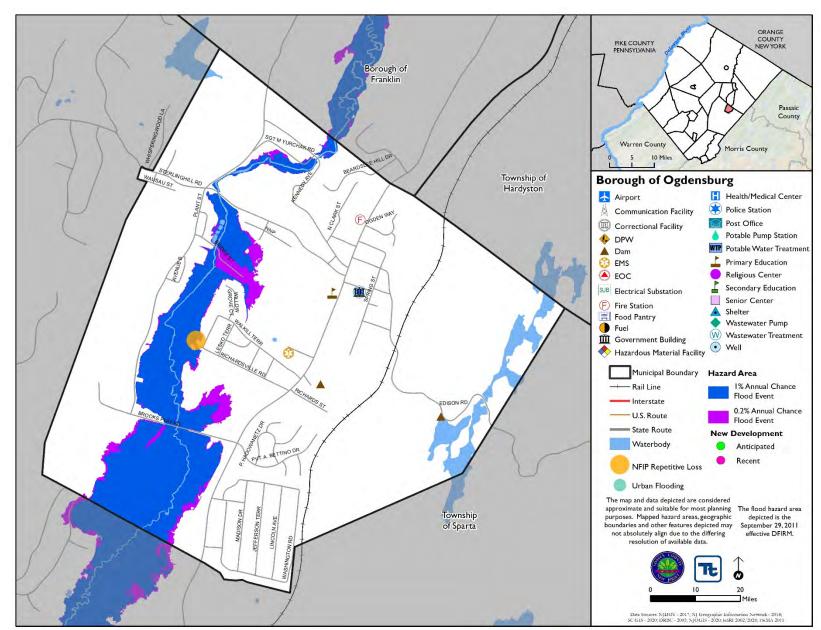


Figure 9.17-1. Borough of Ogdensburg Hazard Area Extent and Location Map 1

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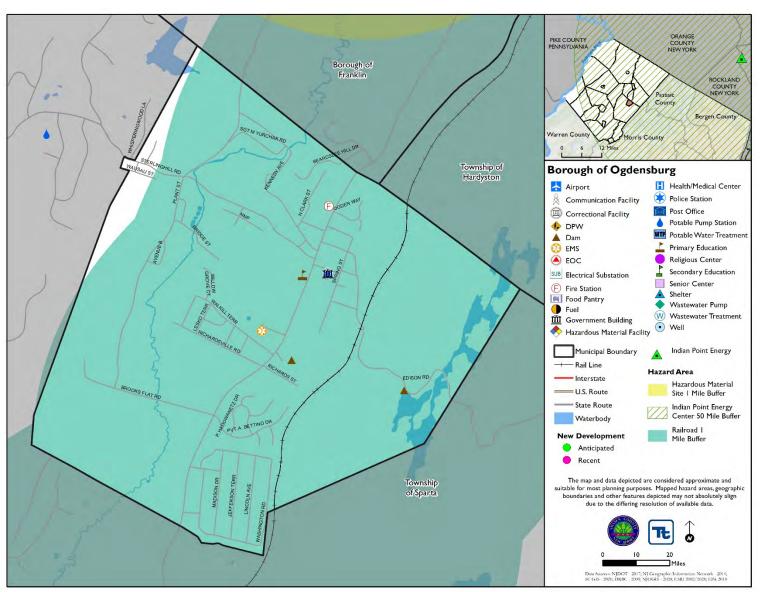


Figure 9.17-2. Borough of Ogdensburg Hazard Area Extent and Location Map 2



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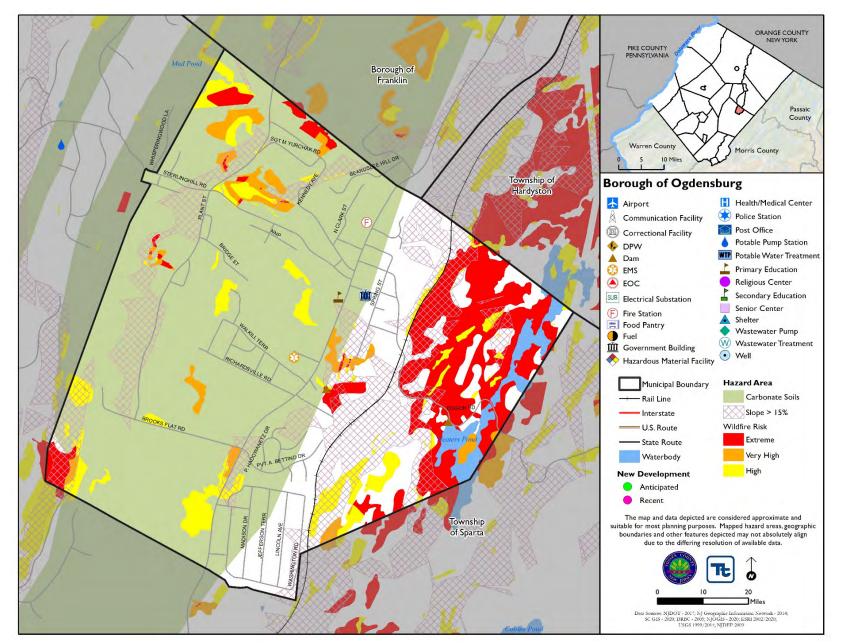


Figure 9.17-3 Borough of Ogdensburg Hazard Area Extent and Location Map 3



	Action	Worksheet						
Project Name:	Ogdensburg Public School	Backup Power						
Project Number:	2021-Ogdensburg-001	2021-Ogdensburg-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 Ogdensburg Public School (100 Main St, Ogdensburg, NJ 07439) requires a backup power source. The school is a K-8 school and would serve as a shelter in place shelter during a sudden hazard event.							
Action or Project Intended								
Description of the Solution:	School. The Borough will the electrical components to sup	The Engineer will research what size generator is needed to power the Ogdensburg Public School. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the Ogdensburg Public School. In addition, the School will update the shower fixtures in the locker rooms and purchase cots						
Is this project related to a		No 🗆						
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Ensures continuity of operations of Ogdensburg Fire House					
Useful Life:	20 years		1					
Estimated Cost:	\$60,000	Mitigation Action Type	e:	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 Sou	rces:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget				
Responsible Organization:	Engineer, School District, OEM	Local Planning Mechan to be Used in Implementation if any		Hazard Mitigation, Emergency Management				
Three Alternatives Conside	ered (including No Action)							
	Action	Estimated Cost		Evaluation				
Alternatives:	No Action Install solar panels	\$0 \$100,000	amo	Problem continues. eather dependent; need large punt of space for installation; xpensive if repairs needed				
	Install wind turbine	\$100,000	Wea	ther dependent; poses a threat 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:	Ogdensburg Public School	Backup Power			
Project Number:	2021-Ogdensburg-001				
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate			
Life Safety	1	Project will protect critical services of Ogdensburg Public School			
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	Engineer, School District, OEM			
Other Community Objectives	1				
Total	12				
Priority (High/Med/Low)	High				



		Action	Works	sheet				
Project Name:	Ogdensburg Fire H	Ogdensburg Fire House Backup Power						
Project Number:	2021-Ogdensburg-(	2021-Ogdensburg-002						
Risk / Vulnerability								
Hazard(s) of Concern:	Severe Weather, Se	vere Wint	er We	ather, Hurricane, Nor	'Easter			
Description of the Problem:	Ogdensburg Fire D requires a backup p	Backup power sources are necessary to maintain critical services for critical facilities. The Ogdensburg Fire Department (30 Main Street, (One Fire House Lane) Ogdensburg NJ 07439) requires a backup power source.						
Action or Project Intended								
Description of the Solution:	House. The Boroug	h will the	n purcl		elected g	rer the Ogdensburg Fire generator and necessary g Fire House.		
Is this project related to a	<b>Critical Facility?</b>	Yes	$\boxtimes$	No 🗌				
Level of Protection:	N/A			mated Benefits ses avoided):		Ensures continuity of operations of Ogdensburg Fire House		
Useful Life:	20 years		Goal	ls Met:		1		
Estimated Cost:	\$50,000		Mitigation Action Type:			Structure and Infrastructure Projects (SIP)		
Plan for Implementation						_		
Prioritization:	High			red Timeframe for lementation:	•	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, Municipal Budget		
Responsible Organization:	Engineer, Fire Depa OEM	artment,	to b	ll Planning Mechar e Used in		Hazard Mitigation, Emergency Management		
Three Alternatives Conside	orod (including No.	Action)	Imp	lementation if any				
Three Atternatives conside	Action	Action	F	stimated Cost		Evaluation		
	No Action			\$0		Problem continues.		
Alternatives:	Install solar par	nels		\$100,000	amo	eather dependent; need large punt of space for installation; xpensive if repairs needed		
	Install wind tur	bine	\$100,000 Weather dependent; poses a the to wildlife; expensive repairs needed			wildlife; expensive repairs if		
Progress Report (for plan	maintenance)							
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								



Action Worksheet					
Project Name:	Ogdensburg Fire House Bac	ckup Power			
Project Number:	2021-Ogdensburg-002				
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate			
Life Safety	1	Project will protect critical services of Ogdensburg Fire House			
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	Engineer, Fire Department, OEM			
Other Community Objectives	1				
Total	12				
Priority (High/Med/Low)	High				



	A	ction W	orksheet	;		
Project Name:	Repetitive Loss Mitig	gation				
Project Number:	2021-Ogdensburg-0	03				
	Ri	sk / Vul	nerabilit	y		
Hazard(s) of Concern:	Flood, Severe Weath	er				
Description of the Problem:	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Borough has 2 repetitive loss properties but other properties may be impacted by flooding as well.					
Description of the Solution:						
Is this project related to a ( Lifeline?	Avenue. Critical Facility or	Yes		No 🛛		
Level of Protection:	event + freeboard (in accordance with flood ordinance)	accordance with flood (losses avoided)			Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.	
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)		Goals Met:		2	
Estimated Cost:	\$1Million		Mitigation Action Type:		Structure and Infrastructure Project	
		for Imp	lementa		1	
Prioritization:	High			Timeframe for entation:	6-12 months	
Estimated Time Required for Project Implementation:	Three years			al Funding	FEMA HMGP and FMA, local cost share by residents	
Responsible Organization:	NFIP Floodplain Administrator, suppor homeowners	ted by	Local Planning Mechanisms to be Used in Implementation if any:		Hazard Mitigation	
	Three Alternatives	Consid				
	Action		Es	timated Cost	Evaluation	
Alternatives:	No Action Elevate homes			\$0 \$500,000	Current problem continues When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads	
	Elevate roads		\$500,000		Elevated roadways would not protect the homes from flood damages	
	Progress Rej	port (fo	r plan ma	intenance)		
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Action Worksheet					
Project Name:	Repetitive Loss Mitigation				
Project Number:	2021-Ogdensburg-003				
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate			
Life Safety	1	Families moved out of high-risk flood areas.			
Property Protection	1	Properties removed from high-risk flood areas.			
Cost-Effectiveness	1	Cost-effective project			
Technical	1	Technically feasible project			
Political	1				
Legal	1	The Borough has the legal authority to conduct the project.			
Fiscal	0	Project will require grant funding.			
Environmental	1				
Social	0	Project would remove families from the flood prone areas of the Borough.			
Administrative	0				
Multi-Hazard	1	Flood, Severe Weather			
Timeline	0				
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners			
Other Community Objectives	1				
Total	10				
Priority (High/Med/Low)	High				





	Action	n Worksheet					
Project Name:		Building as Emergency Warm	ing Stat	tion			
Project Number:	2021-Ogdensburg-005						
Risk / Vulnerability							
Hazard(s) of Concern:	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter, Flood						
Description of the Problem:	The Borough is seeking to establish the First Aid Squad building as an emergency warming station. Upgrades will be needed to the facility to meet these needs.						
Action or Project Intended	for Implementation						
Description of the Solution:	<ul> <li>The Borough will complete the following upgrades to the First Aid Squad building to allow for use as an emergency warming station:         <ul> <li>Installation of a backup generator</li> <li>The Engineer will research what size generator is needed to power the First Aid Squad building. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the First Aid Squad building.</li> <li>Roadway and drainage improvements to maintain access in flooding events</li> <li>The Engineer will research what improvements are need to the roadway and stormwater system surrounding the First Aid Squad building. The Borough will then carry out the identified improvements.</li> </ul> </li> </ul>						
Is this project related to a	Critical Facility? Yes						
Level of Protection:	N/A	(losses avoided):	Estimated Benefits (losses avoided):				
Useful Life:	20 years	Goals Met:		1			
Estimated Cost:	\$100,000	Mitigation Action Type	e:	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:				
Responsible Organization:	Engineer, OEM	Local Planning Mechar to be Used in Implementation if any		Hazard Mitigation, Emergency Management			
Three Alternatives Conside							
	Action	Estimated Cost		Evaluation			
Alternatives:	No Action Install solar panels	\$0	Problem continues. Weather dependent; need large amount of space for installation expensive if repairs needed				
	Install wind turbine	\$100,000 Weather dependent; poses a threa 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:	Establish First Aid Squad	d Building as Emergency Warming Station			
Project Number:	2021-Ogdensburg-005				
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate			
Life Safety	1	Project will protect critical services of First Aid Squad building as an emergency warming station			
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, Flood			
Timeline	0	Within 5 years			
Agency Champion	1	Engineer, OEM			
Other Community Objectives	1				
Total	12				
Priority (High/Med/Low)	High				





# 9.18 TOWNSHIP OF SANDYSTON

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

## 9.18.1 Hazard Mitigation Planning Team

The Township of Sandyston 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).

Primary Poir	nt of Contact	Alternate Point of Contact
Name / Title: Shane Houghtaling, Emergency Management Address: 133 Route 645, Sandyston, NJ 07826 Phone Number: 973-222-5533 Email: oem@sandystontownship.com		Name / Title: Amanda F. Lobban, RMC, Municipal Clerk Address: 133 Route 645, Sandyston, NJ 07826 Phone Number:(973-948-3520 x200 Email: clerk@sandystontownship.com
NFIP Floodplain Administ Name / Title: Robert W. Hub Address: 133 Route 645, San Phone Number: (973) 948-35 Email: deputyclerk@sandysto	er, Construction Official dyston, NJ 07826 20 x201	
Name	Title	Method of Participation
Shane Houghtaling	Emergency Management	Primary point of contact, mitigation strategy development, reviewed annex*
Amanda F. Lobban	Municipal Clerk	Alternate point of contact, mitigation strategy development; attended the kickoff meeting and annex training and mitigation strategy workshop; reviewed the critical asset inventory; assisted with public outreach (Facebook); provided information and data for the updated annex, reviewed annex*
Robert W. Huber	Construction Official	NFIP floodplain administrator, reviewed annex*
Stanley J. Dutkus	Emergency Management	Attended kickoff meeting; reviewed the critical asset inventory
George B. Harper, Jr.	Mayor, Public Works Director	Reviewed annex*
Harold Pellow	Engineer	Reviewed annex*
Jessica M. Caruso	CFO	Reviewed annex*
Jessica Caldwell	Land Use Planner	Reviewed annex*
Scott House	Fire Department	Reviewed annex*

#### Table 9.18-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





## 9.18.2 Jurisdiction Profile

Sandyston Township is a small rural township located in the northwestern portion of Sussex County. It has a total area of 43.3 square miles. The Township is bordered to the north by Montague Township, to the south by Frankford, Walpack, and Hampton Townships, to the east by Wantage and Frankford Townships, and to the west by Pennsylvania. The Delaware River makes up the entire western border of the Township. Big Flat Brook, Little Flat Brook, and Tuttles Corner Brook are all streams located within the Township. The following unincorporated communities are located within the Township: Shaytown, Hainesville, Abertown, Layton, Bevans, Tuttles Corner, and Normanook.

According to the U.S. Census, the 2010 population for the Township of Sandyston was 1,998. The estimated 2018 population was 1,925, a 3.6 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 5.9 percent of the population is 5 years of age or younger and 19.8 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

## 9.18.3 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 9.17-2 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.

Type of Development	2	015	2	016	2	017	2018		2019	
1	Number	of Building	Permits	for New C	onstructi	on Issued Si	nce the <b>H</b>	Previous HN	ΛP	
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single and Two- Family Units	0	0	1	1	1	1	2	0	1	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	Developmentof# of Units /(address and/orKnown HazardStatus of							itus of		
	<b>Recent Major Development and Infrastructure from 2015 to Present</b>									
	None identified.									
Kno	Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years									
				None a	inticipated	1.				

### Table 9.18-2. Recent and Expected Future Development

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

## 9.18.4 Capability Assessment

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

		Authority that		Have aspects of the HM been integrated into yo codes/ordinances/plar			
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.		
Codes, Ordinances, & Requirements							
Building Code	Yes	State & Local	Yes	Yes	-		
<ul> <li>Adopted 9/3/2019</li> <li>The Building Department is responsible et seq.).</li> </ul>	for this code in co	mpliance with State Un	Yes – if	ion Code Act (N.	J.S. 52:27D-119		
Zoning Code	Yes	Local	municipality has a	Yes	-		
			Planning Board				
<ul> <li>Comment: <ul> <li>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.</li> <li>The Zoning Department is responsible for this code in compliance with Chapter 150- Zoning.</li> <li>The purpose of this chapter is to contribute to and provide for the recreational developments in the Delaware Valley; to promote and protect the health, safety and general welfare of the public; to preserve the present environment, rural in character, insofar as possible and conserve forest cover and streams; to provide for an orderly development of service zones; to implement the design of a residential community dedicated to the preservation of open space with population densities in harmony with the geology and water resources of the Flatbrook Watershed.</li> </ul> </li> </ul>							
Subdivisions	Yes	Local	Yes – if municipality has a	Yes	-		

### Table 9.18-3. Planning, Legal and Regulatory Capability





	Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
			Planning		
Comment:			Board		
<ul> <li>P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance r the filing of such plats with the county re condition for the issuance of a permit for</li> </ul>	equire approval of ecording officer an	f subdivision plats by re ad approval of site plans	solution of the p s by resolution o	lanning board as f the planning bo	a condition for ard as a

- 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 Building Department is responsible for this ordinance in compliance with Chapter 137 Subdivision and Site Plan Review

Stormwater Management	Yes	State & Local	Yes	Yes	-	
<ul> <li>Comment:</li> <li>See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8</li> <li>Chapter 138 Stormwater Control</li> <li>It is the purpose of this chapter to establish minimum stormwater management requirements and controls for major development.</li> </ul>						
Post-Disaster Recovery	No	-	No	-	-	
Comment:						
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-	
Comment: • N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real improvements, fees for services and ame schools, fire and police, as well as any h	Estate Commissio nities, the type of t	n. The POS provides in title and ownership inte	formation such rest being offere e subdivision.	as estimated com	, pletion dates for	
Growth Management	No	-	Yes – if municipality has a Planning Board	-	-	
Comment: • State Mandated on a municipal level. See Redevelopment Plan provides for the del of state environmental regulations make.	lineation of Growt	h Areas and Environs;	Use of the endor	sed plans in the i		
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
<ul> <li>Board</li> <li>Comment:</li> <li>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.</li> </ul>						
review of all subdivisions of land within affecting county road or drainage facili planning boards shall have a complete fi municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands ac boundary, or proposed facilities or publi given to the county planning board at lea a copy of the official notice of the public	the county by said ties as set forth an ile of the planning y planning board a notify the county p djoining county ro ic lands shown on ast 10 days prior to hearing together	county planning board d limited hereinafter in and zoning ordinances copy of the planning a planning board of the ir pads or other county lar the county master plan to the public hearing the with a copy of the propo	l and for the app this section. 40 of all municipal nd zoning ordinu- throduction of a nds, or lands lyin or official coun- treon by persond osed ordinance.	proval of those su 27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 feet ty map. Such now al delivery or by c	bdivisions that county y, each cipality in effect andment of t of a municipal tice shall be pertified mail of	

		Authority that	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)		If yes- how? Describe in comments.	If no - add Mitigation Action #, i applicable
Comment: • Chapter 85 Hazardous Wastes					
<ul> <li>Chapter 85 Hazardous Wastes</li> <li>Chapter 100 Littering</li> </ul>					
Chapter 141 Trees					
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	-
Comment:					
<ul> <li>The Construction Official is responsibility</li> <li>It is the purpose of this chapter to produce to flood conditions in specific are:         <ul> <li>A. Protect human life and the sequence of the sequence of the sequence of the sequence of the general public.</li> <li>C. Minimize the need for the sequence of the sequence</li></ul></li></ul>	mote the public heal as by provisions dest health. f public money for cc escue and relief effor siness interruptions. blic facilities and uti, areas of special flood tax base by providing blight areas.	th, safety and general w igned to: ostly flood-control proje ts associated with flood lities such as water and d hazard. g for the second use and	elfare and to mi ects. ling and general gas mains, elec l development of	inimize public and lly undertaken at tric, telephone an <sup>c</sup> areas of special	l private losse: the expense of d sewer lines,
• H. Ensure that those who a		pecial flood hazard ass	ume responsibili	ity for their action	10
			unie responsioni	ly for men denor	15.
The Ordinance includes the state's 1-j Wellbead Protection	ſ	ement.	-		
Wellhead Protection	foot freeboard requin Yes		No	Yes	-
Wellhead Protection Comment: • Chapter 150 Zoning, Article IV Gener	Yes	ement. Local	No	Yes	-
Wellhead Protection Comment: Chapter 150 Zoning, Article IV Gener open space as necessary.	Yes	ement. Local	No	Yes	-
Wellhead Protection Comment: • Chapter 150 Zoning, Article IV Gener open space as necessary. Emergency Management	Yes ral Regulations and S	ement. Local Standards establishes th	No nat wellhead prod	Yes tection areas may	-
Wellhead Protection Comment: • Chapter 150 Zoning, Article IV Gener open space as necessary. Emergency Management Comment: • Chapter 11, Fire Department, Volunte	Yes Yes Yes Yes	ement. Local Standards establishes th	No nat wellhead prod	Yes tection areas may	-
Wellhead Protection Comment: • Chapter 150 Zoning, Article IV Gener open space as necessary. Emergency Management Comment: • Chapter 11, Fire Department, Volunte • Chapter 71, Fire Prevention	Yes Yes Yes Yes Yes eer	ement. Local Standards establishes th	No nat wellhead prov No	Yes tection areas may	-
Wellhead Protection Comment: • Chapter 150 Zoning, Article IV Gener open space as necessary. Emergency Management Comment: • Chapter 11, Fire Department, Volunte • Chapter 71, Fire Prevention Climate Change	Yes Yes Yes Yes	ement. Local Standards establishes th	No nat wellhead prod	Yes tection areas may	-
Wellhead Protection Comment: • Chapter 150 Zoning, Article IV Gener open space as necessary. Emergency Management Comment: • Chapter 11, Fire Department, Volunte • Chapter 71, Fire Prevention Climate Change Comment:	Yes Yes Yes Yes Yes Yes Yes No	ement. Local Standards establishes th	No No No No	Yes tection areas may	-
Wellhead Protection Comment: • Chapter 150 Zoning, Article IV Gener open space as necessary. Emergency Management Comment: • Chapter 11, Fire Department, Volunte • Chapter 71, Fire Prevention Climate Change Comment:	Yes Yes Yes Yes Yes eer	ement. Local Standards establishes th	No nat wellhead prov No	Yes tection areas may	-
Wellhead Protection Comment: • Chapter 150 Zoning, Article IV Gener open space as necessary. Emergency Management Comment: • Chapter 11, Fire Department, Volunte • Chapter 71, Fire Prevention Climate Change Comment: Disaster Recovery Ordinance	Yes Yes Yes Yes Yes Yes Yes No	ement. Local Standards establishes th Local	No No No No	Yes tection areas may No -	- t be reserved a - -
Wellhead Protection         Comment:         • Chapter 150 Zoning, Article IV Generopen space as necessary.         Emergency Management         Comment:         • Chapter 11, Fire Department, Volunte         • Chapter 71, Fire Prevention         Climate Change         Comment:         • Chapter 71, Fire Prevention         Climate Change         Comment:         • Comment:         • Comment:	Yes Yes Yes Yes Yes Yes Yes No	ement. Local Standards establishes th Local	No No No No	Yes tection areas may No -	- t be reserved a - -
Wellhead Protection         Comment:         • Chapter 150 Zoning, Article IV Generopen space as necessary.         Emergency Management         Comment:         • Chapter 11, Fire Department, Volunte         • Chapter 71, Fire Prevention         Climate Change         Comment:         Disaster Recovery Ordinance         Comment:         Disaster Reconstruction Ordinance	Yes Yes Yes Yes Yes Yes No No	ement. Local Standards establishes th Local -	No No No No	Yes tection areas may No - -	- • be reserved a - -
Wellhead Protection         Comment:         • Chapter 150 Zoning, Article IV Generopen space as necessary.         Emergency Management         Comment:         • Chapter 11, Fire Department, Volunte         • Chapter 11, Fire Department, Volunte         • Chapter 71, Fire Prevention         Climate Change         Comment:         Disaster Recovery Ordinance         Comment:         Disaster Reconstruction Ordinance         Comment:	Yes Yes Yes Yes Yes Yes No No	ement. Local Standards establishes th Local -	No No No No	Yes tection areas may No - -	- • be reserved a - -
Wellhead Protection         Comment:         • Chapter 150 Zoning, Article IV Generopen space as necessary.         Emergency Management         Comment:         • Chapter 11, Fire Department, Volunte         • Chapter 71, Fire Prevention         Climate Change         Comment:         Disaster Recovery Ordinance         Comment:         Disaster Reconstruction Ordinance         Comment:         Other:	Yes Yes Yes Yes Yes Yes Yes No No No	rement. Local Standards establishes th Local - -	No No No No No	Yes tection areas may No	- • be reserved a - -
Wellhead Protection         Comment:         • Chapter 150 Zoning, Article IV Generopen space as necessary.         Emergency Management         Comment:         • Chapter 11, Fire Department, Volunte         • Chapter 11, Fire Department, Volunte         • Chapter 71, Fire Prevention         Climate Change         Comment:         Disaster Recovery Ordinance         Comment:         Disaster Reconstruction Ordinance         Comment:         Disaster Reconstruction Ordinance         Comment:         Other:         Comment:	Yes Yes Yes Yes Yes Yes Yes No No No	rement. Local Standards establishes th Local - -	No No No No No	Yes tection areas may No	- • be reserved a - -
Wellhead Protection Comment: • Chapter 150 Zoning, Article IV Gener open space as necessary. Emergency Management Comment: • Chapter 11, Fire Department, Volunte	Yes Yes Yes Yes Yes Yes Yes No No No	rement. Local Standards establishes th Local - -	No No No No No	Yes tection areas may No	- • be reserved a - -

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





				Have aspects of the HMP	
					ted into your ances/plans?
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
important to the development of the coun municipalities within the county in any n advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be o • The Township Comm. is responsible for	natters whatsoeven ers with respect to Land Use Law (M and requires that consistent with the	r which may concern the the formulation of devel (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no	e integrity of the lopment program Aug 1, 1976 40: are a master pla	county master pl ns and budgets fo 55D-28 provides n and update it ev	an and to or capital the required very 6 years.
Capital Improvement Plan	No	-	No	-	-
Comment:					
Disaster Debris Management Plan	No	-	No	-	2021- Sandyston- 006
Comment:		a			
Floodplain or Watershed Plan	No	-	No	-	-
Comment:					
Stormwater Management Plan	Yes	Local	Yes	Yes	-
			пжиег гипон а	iality control. and	lso set forth l the prohibition
of major development to be located with without prior authorization from the De • The DPW is responsible for this plan in	partment under the	runoff from the major of e Flood Hazard Area Co	levelopment into	a 300-foot ripar	l the prohibition
without prior authorization from the De • The DPW is responsible for this plan in Stormwater Pollution Prevention Plan	partment under the	runoff from the major of e Flood Hazard Area Co	levelopment into	a 300-foot ripar	l the prohibition
<ul> <li>without prior authorization from the Dep</li> <li>The DPW is responsible for this plan in</li> </ul>	partment under the compliance with S Yes harge Elimination 2, 2004, NJ Regist off: The NJPDES in the Act. These NJ sewer systems, kn s such as universith am establishes the ese sources. The S Idlife feeding, prop dinance(s); requiri	runoff from the major of e Flood Hazard Area Co storm Water 2005. Local System Stormwater Reg er. These NJPDES rules rules establish a regulat PDES rules govern the own as MS4s. Under th ies and hospitals, and Si e Statewide Basic Require tatewide Basic Require per waste disposal, etc.), ing certain maintenance	development into ontrol Act Rules Yes gulation Progran s are intended to tory program for issuance of pern is program, pern tate, interstate a rements that mu, ments include mo ; the development activities (such	a 300-foot ripar, N.J.A.C. 7:13. No m (NJPDES) rule address and redu- existing stormwa its to entities tha nits must be secur nd federal agenci st be implemented easures such as: 1 as street sweepin	I the prohibition ian zone - s (N.J.A.C. uce pollutants ter discharges t own or red by es that operate I to reduce he adoption of stormwater g and catch
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without prior authorization from the Deg. The DPW is responsible for this plan in Stormwater Pollution Prevention Plan Comment: The Phase II New Jersey Pollutant Disc. 7:14A) were published in the February J. associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will management plan and implementing ord basin cleaning); implementing solids an education component. Urban Water Management Plan Comment: Habitat Conservation Plan	partment under the compliance with S Yes harge Elimination 2, 2004, NJ Regist off. The NJPDES 1 ater Act. These NJ sewer systems, kn s such as universiti ram establishes the ese sources. The S dilife feeding, prop dinance(s); requiri d floatables control No No	runoff from the major of e Flood Hazard Area Co Storm Water 2005. Local System Stormwater Reg er. These NJPDES rules rules establish a regulat PDES rules govern the own as MS4s. Under the ies and hospitals, and St e Statewide Basic Requires tatewide Basic Requires tatewide Basic Requires or waste disposal, etc.), ing certain maintenance ol; locating discharge p - Local	development into ontrol Act Rules Yes gulation Progran s are intended to tory program, perr tate, interstate a is program, perr tate, interstate at ments include ma cativities (such oints and stencit No No No Master Plan.	a 300-foot ripar, N.J.A.C. 7:13. No (NJPDES) rule address and redu- existing stormwa its to entities tha nits must be secur nd federal agenci st be implemented easures such as: t nt of a municipal as street sweepin ling catch basins; -	I the prohibition ian zone - s (N.J.A.C. uce pollutants ter discharges t own or red by es that operate I to reduce he adoption of stormwater g and catch
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		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>NJ Coastal Area Facility Review Act (N. including construction, relocation, and structures, and site preparation. This la</li> </ul>	enlargement of but	ildings or structures, an	d excavation, gr	ading, shore prot	ection
Community Wildfire Protection Plan	No	-	No	-	-
Comment:		·			
Community Forest Management Plan	No	-	No	-	-
Comment:	1				
Transportation Plan	No	-	No	-	-
Comment:					
Agriculture Plan	No	-	No	-	-
Comment:					
Climate Action Plan	No	-	No	-	-
Comment:	1				
Tourism Plan	No	-	No	-	-
Comment:					
Business Development Plan	No	-	No	-	-
Comment:					
Other: Open Space Plan	Yes	Local	No	Yes	-
Comment:					
The Township Committee is responsible j	for this plan in cor	mpliance with Master P	lan 2008.		
Response/Recovery Planning Comprehensive Emergency Management Plan					
(CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-
Comment: • Each county and municipality in the State necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State • The OEM is responsible for this plan, we Threat & Hazard Identification & Risk Account of the Action	Emergency Operat een adopted by the e Emergency Oper	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2	ted no later than ncy Managemen	one year after th	ne State
Assessment (THIRA) Comment:					
Post-Disaster Recovery Plan	No	_	No		_
Comment:	110	<u> </u>	110		
Continuity of Operations Plan	No	_	No	-	-
Comment:	110	1	1.0		
Public Health Plan	No	_	No	_	-
Comment:	110		110		
	No		No		
Other Comments	No	-	No	-	-
Comment:					





## Table 9.18-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Building Department
Does your jurisdiction have the ability to track permits by hazard area?	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 Much of the Township is preserved lands associated with the Delaware Water Gap park system.

#### **ADMINISTRATIVE AND TECHNICAL CAPABILITY**

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

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Land Use/Zoning Board
Mitigation Planning Committee	No	-
Environmental Board / Commission	No	-
Open Space Board / Committee	No	-
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	No	-
Maintenance program to reduce risk	No	-
Mutual aid agreements	Yes	Sussex County
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Harold Pellow Assoc. J. Caldwell and Associates
Engineers or professionals trained in building or infrastructure construction practices	Yes	Harold Pellow Assoc.
Planners or engineers with an understanding of natural hazards	Yes	As per need, Bids for Prof. Services.
Staff with training in benefit/cost analysis	No	-
Staff with training in green infrastructure	Yes	Harold Pellow Assoc.
Staff with education/knowledge/training in low impact development	Yes	Harold Pellow Assoc.
Surveyor	Yes	Daniel Kent Inc.
Stormwater engineer	Yes	Harold Pellow Assoc.
Personnel skilled or trained in GIS applications	No	-
Local or state water quality professional	No	-
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	Township Emergency Management Coordinator
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	No	-
Resilience Officer	No	-
Other: NFIP Floodplain Administrator	Yes	Construction Official

## Table 9.18-5. Administrative and Technical Capabilities





Staff/Personnel Resource	Available?	Department/Agency/Position
Other: Professionals trained in conducting damage	Yes	As per need, Bids for Prof. Services.
assessments	105	As per need, bids for 1101. Services.

### FISCAL CAPABILITY

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

#### Table 9.18-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Unsure
Capital Improvements Project Funding	CFO & Township Committee
Authority to Levy Taxes for Specific Purposes	Tax Assessor
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	CFO & Township Committee
Incur Debt through Special Tax Bonds	CFO & Township Committee
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	CFO & Township Committee
Development Impact Fees for Homebuyers or Developers	Township Committee
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No
Other	No

#### EDUCATION AND OUTREACH CAPABILITY

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

#### Table 9.18-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
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, Emergency info posted
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes. Facebook page for information. Share Sheriff's page.
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.	No

#### **COMMUNITY CLASSIFICATIONS**

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





Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (Fire ISO Protection Class)	Yes	Fire Department – 10	25 plus years ago.
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	No	-	-

#### Table 9.18-8. Community Classifications

N/A = Not Applicable. NP = Not Participating. - = Unavailable. TBD = To Be Determined.

#### 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.

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

#### Table 9.18-9. Adaptive Capacity

Notes:

Strong = Capacity exists and is in use; Moderate = Capacity may exist, but is not used or could use some improvement;

Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

#### NATIONAL FLOOD INSURANCE PROGRAM

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





Criterion	Response
What local department is responsible for floodplain management?	Construction
Who is your floodplain administrator? (name, department/position)	Robert W. Huber, Construction Official
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	November 2013
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program exceeds the minimum set by FEMA and the State.
When was the most recent Community Assistance Visit or Community Assistance Contact?	January 27, 1994
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 welcome continuing education and 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 Township has considered joining and would attend a CRS seminar if offered.
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	8 policies \$1,944,800 insurance in force \$7,675 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	5 claims \$209,806 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

#### Table 9.18-10. National Flood Insurance Program Compliance

\*According to FEMA statistics as of October 13, 2020

Reference: FEMA 2020

## 9.18.5 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 Sandyston'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 9.17-11 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.





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 <sup>rd</sup> and 24th.	None identified
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 sought \$3,250 in reimbursements for teleworking equipment and cleaning supplies.

#### Table 9.18-11. Hazard Event History

Source: FEMA 2020, NOAA NCEI 2020

## 9.18.6 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 Sandyston 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 Sandyston 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 Sandyston has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

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

- Number of repetitive loss (RL) properties: 1
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

Source: FEMA 2019 Note: The number of SRL properties excludes RL properties.

#### **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.

		Exposure		
Name	Туре	1% Event	0.2% Event	
Sandyston Township Building	Post Office		Х	
21-6 Kittatinny Lake Dam	Dam	Х	Х	

#### Table 9.18-12. Critical Facilities and Lifelines Flood Exposure





		Expo	osure
Name	Туре	1% Event	0.2% Event
21-13 Flat Brook Valley Dam	Dam	Х	Х
21-18 Stony Lake Dam	Dam	Х	Х
21-23 Lake Ashroe Dam	Dam	Х	Х
21-26 Morgan Pond Dam	Dam	Х	Х
21-28 Lance Mill Dam	Dam	Х	Х
21-49 Harper Dam	Dam	Х	Х
22-113 Skellinger Lake Dam	Dam	Х	Х

Source: Sussex County Planning Partnership 2020 Note:

\*Identified lifeline

#### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- Scattered privately-owned homesites are located along the Delaware River. Some of these properties are located in the Special Flood Hazard Area, with development requiring floodproofing.
- Little Flat Brook crosses Degroat Road just east of the road's intersection with Route 206. The Brook experiences occasional riverine flooding.
- Lack of forest management of federal and private lands has increased fire risk for residents of Sandyston.
- Lake communities in Sandyston face snow removal issues owing to a lack of suitable land on which snow can be cleared from roads and placed.

#### 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 Sandyston 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 Sandyston. The Township of Sandyston 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 Sandyston agreed with the calculated hazard rankings.

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

#### Table 9.18-13. Township of Sandyston Hazard Ranking





## Medium High Medium High High Low

## 9.18.7 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 9.17-15 and Table 9.17-16 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.

			Status (In Progress, No	Include in the 2021 HMP Update?			
2016	Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
Sandyston- 1 (new)	Sandyston Township Sunrise Communications Tower Generator	Township OEM	Completed using a FEMA grant; project total \$6,173.				
Sandyston-2 (new)	To ensure continuity of operations at critical facilities and municipal buildings, install generator Wiring at Municipal Complex	Township OEM	Completed using a FEMA grant; project total \$9,300.				
Sandyston- 3 (new)	Emergency Generator for DPW Garage & Fire Station #2	Township OEM	Completed using a FEMA grant; project total \$21,000.				
Sandyston- 4 (old #1)	Implement Fire Wise Program throughout the Township.	Fire Department, OEM	Ongoing Capability				
Sandyston- 5 (old #2)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	Township OEM	Ongoing Capability (Follow-up)				
Sandyston- 6 (new)	Install early warning devices in the Township.	Fire Department	In Progress	Х	2021- Sandyston- 001		
Sandyston- 7 (new)	Protect school building from severe weather related incidents	Board of Education	No Progress	х	2021- Sandyston- 002		
Sandyston- 8 (new)	Purchase a mini pumper four- wheel drive unit with extended crew cab to support wildland and structural fires.	Fire Department	No Progress	Х	2021- Sandyston- 003		
Sandyston- 9 (new)	Work with the PUC and FCC for regulations requiring phone providers to maintain phone service during loss of power.	Township	Ongoing Capability				

## Table 9.18-14. Status of Previous HMP Mitigation Actions





2016 Action Number Action Description		Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)		the 2021 HMP odate? Enter 2021 HMP Action #
Sandyston- 10 (new)	Protect roadway crossing the Delaware River from damages and debris during hazard events.	Private Toll Bridge Owner/Operator	No Progress	х	2021- Sandyston- 005
Sandyston- 11 (new)	Initiate a program to verify that all dams in the community meet the state safety requirements.	NJDEP, Dam Owners, Township	Ongoing Capability		

### **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Township of Sandyston 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 Sandyston 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 9.17-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Sandyston 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 9.17-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





### Table 9.18-15. 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- Sandyston -001	Sandyston Early Warning Systems	<b>Problem:</b> Sandyston Township has an early warning siren for hazard events. The sirens are located at Fire Stations #1 and #2. Fire Station #1 is located near the Sandyston Township Municipal Building along CR-645 and Fire Station #2 is located in Layton on CR-560/Tuttles Corner-Dingmans Ferry Road. Station #2's early warning siren is broken and is no longer functional, thereby limiting a source of emergency communications for residents in the northern portion of the Township.	New & Existing	All Hazards	1, 5	OEM	HMGP; BRIC; Township Funds	Increas ed emerge ncy warnin gs	Low	Wi thi 3 ye ars	Hig h	LPR	ES
	<b>Solution:</b> The Township proposes to replace and augment its early warning capabilities at the Fire Station with a siren with enhanced reach and functionality.						T						
2021-	Sandyston-	<b>Problem</b> : The Sandyston-Walpack School building is not protected from severe weather events.		Severe Weather:		Sandyston-	Board of	Increas ed ability		Wi thi n			
Sandyston -002	Walpack School Retrofits	<b>Solution:</b> The Township and Board of Education propose to retrofit the school building to withstand hazard events such as snowfall.	Existing	Weather Severe Winter Weather	1, 2	Walpack Board of Education	Education; Township funds	to withsta nd hazard s	Medi um	fiv e ye ars	Hig h	SIP	РР
2021- Sandyston -003	Brush Truck and Utility Truck Acquisition	<b>Problem</b> : Sandyston Township is a largely rural and wooded community. Roads in the Township are narrow, and brush fires require a quick response by the Department. Additionally, a large portion of Sandyston is preserved open space associated with the Delaware Water Gap. The high amount of visitation and tourism associated with the recreation facilities magnifies the importance of emergency response from the Township, though it has limited resources to acquire equipment and vehicles.	New	Earthquak e; Flood Geologic; Hazardous Materials Hurricane and Tropical Storm; Nor'Easter ; Severe Weather; Severe Winter	1, 2, 5, 6	Fire Department	Assistance to Firefighters Grant Program; Township funds	Enhanc ed respon se for fire faciliti es	Medi um	Wi thi n fiv e ye ars	\$15 0,00 0	SIP	ES
		<b>Solution:</b> The Township proposes to purchase a brush truck and utility truck		Winter Weather; Wildfire									







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
		to augment the Township's response to fire and rescue incidents. The brush truck is the first line of defense in a brush fire and can traverse rough terrain. The utility truck will tow the Township's utility terrain vehicle in the case of emergency. The acquisition would enable enhanced response from the Township's fire department and greater capabilities during all types of hazard events. The Utility Truck will tow the UTV to emergency locations where traditional towing vehicles cannot navigate due to road size or terrain limitations.											
2021- Sandyston -004	Phone Service Retention	Problem: Sandyston Township experiences cable outages that impact phone lines during severe storm events. Solution: The Township proposes to work with the PUC and FCC to enact regulations requiring phone providers to maintain phone service during loss of power.	Existing	All Hazards	1, 2, 3, 4, 5, 6	Century Link; Optimum; PUC	Staff time/Town ship funds	Increas ed phone/ cable reliabil ity	Low	Wi thi n fiv e ye ars	Hig h	LPR	PI
2021- Sandyston -005	Delaware River Bridge Retrofit	<ul> <li>Problem: The Dingman's Ferry bridge is the primary access road between the Township and Pennsylvania. The Bridge is privately owned and vulnerable to flooding.</li> <li>Solution: The Township proposes to protect the roadway crossing the Delaware River from damages and debris during hazard events. The Township will work with the bridge's owners, the County, and NJDEP to protect the bridge from debris during a flood.</li> </ul>	Existing	Flood Geologic; Hazardous Materials Hurricane and Tropical Storm; Nor'Easter ; Severe Weather; Severe Winter Weather;	1, 2, 5, 6	NJDEP; Sussex County; Private owners; Township Administrat ion	Private funds; BRIC; NJDOT; HMGP	Contin ued bridge access followi ng hazard events	High	Wi thi n fiv e ye ars	Hig h	SIP	рр
2021- Sandyston -006	Disaster Debris Management Plan	<ul><li>Problem: The Township lacks a Disaster Debris Management Plan.</li><li>Solution: The Township will develop and adopt a Disaster Debris Management Plan. The Plan will include any</li></ul>	N/A	All Hazards	5	Township OEM, Administrat ion	Township budget	Increas ed disaste r capabil ities	Staff time	2 ye ars	Hig h	LPR	ES





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
		necessary mutual aid discussions to supplement the Township's capabilities.											
		<b>Problem</b> : The Township lacks a reverse 9-1-1 notification system to warn residents about hazard events.				Township		Enhanc ed warnin		Wi thi			
2021- Sandyston -007	Reverse 911	<b>Solution:</b> The Township proposes to acquire and implement a reverse 9-1-1 notification system to inform all residents of hazard events and make the Township safer.	New	All Hazards	1, 3, 4, 6	OEM, Administrat	Township budget	g capabil ities to safegu ard residen ts	Low	n thr ee ye ars	Hig h	EAP	PI
	Problem: Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 1 repetitive loss property but other properties may be impacted by flooding as well. Solution: Conduct outreach to 30 flood-				NFIP Floodplain	FEMA	Elimin ates flood damag e to homes and residen						
2021- Sandyston -008	Repetitive Loss Properties	Solution: Conduct outreach to 30 flood- prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property- owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).	Existing	Flood, Severe Weather	2	Administrat or, supported by homeowner s	HMGP and FMA, local cost share by residents	ts, creates open space for the munici pality increas ing flood storage	\$500, 000	3 ye ars	Hig h	SIP	РР
2021- Sandyston -009	Firewise Participation	Problem: The Township had participated in the Firewise program between 2014- 2019, and the plan has now expired. The Township seeks to re-enter the Firewise program. Solution: The Township proposes to undertake the documentation and process necessary to re-enter the Firewise program and undertake associated mitigation activities.	Existing	Wildfire	5	Township OEM: Fire Department ; NFPA; NJ State Forest Service	Staff Time	Enhanc ed commu nity prepare dness	Low – staff time	Wi thi n on e ye ar	Hig h	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

#### 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.

Potential FEMA HMA Funding Sources:

BRIC

FMA

HMGP

• 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.

Building Resilient Infrastructure and Communities

Flood Mitigation Assistance Grant Program

Hazard Mitigation Grant Program

- 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.



#### Timeline:

*The time required for completion of the project upon implementation* 

#### <u>Cost:</u>

The estimated cost for implementation.

#### Benefits:

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



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- Sandyston- 001	Sandyston Early Warning Systems	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Sandyston- 002	Sandyston-Walpack School Retrofits	1	1	1	1	1	1	0	1	1	0	1	1	1	1	12	High
2021- Sandyston- 003	Mini-Pumper and Utility Truck Acquisition	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Sandyston- 004	Phone Service Retention	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Sandyston- 005	Delaware River Bridge Retrofit	1	1	1	1	1	0	0	1	1	0	1	1	1	1	11	High
2021- Sandyston- 006	Disaster Debris Management Plan	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Sandyston- 007	Reverse 911	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Sandyston- 008	Repetitive Loss Properties	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2021- Sandyston- 009	Firewise Participation	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High

Table 9.18-16. Summary of Evaluation and Action Priorities

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.



A



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

#### Table 9.18-17. Analysis of Mitigation Actions by Hazard and Category

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

high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard





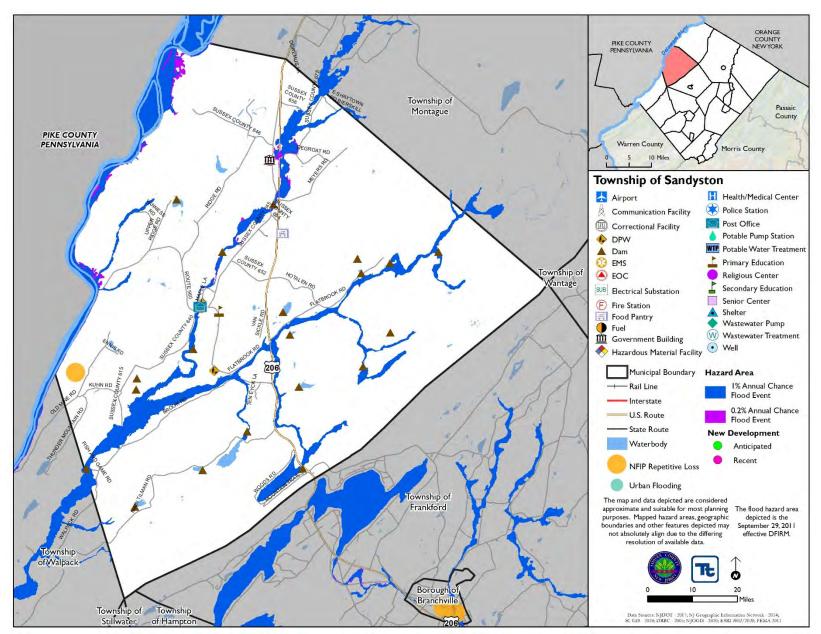


Figure 9.18-1. Township of Sandyston Hazard Area Extent and Location Map 1



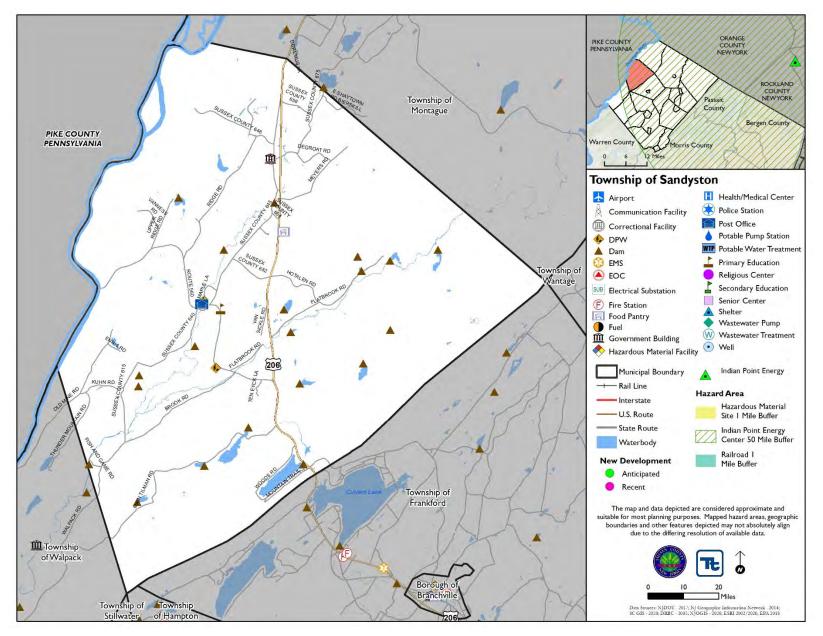


Figure 9.18-2. Township of Sandyston Hazard Area Extent and Location Map 2



#### ORANGE COUNTY NEW YORK PIKE COUNTY PENNSYLVANIA 0 Township of Passaic Montague County PIKE COUNTY PENNSYLVANIA Warren County Morris County 10 Miles **Township of Sandyston** 🛧 Airport Health/Medical Center Police Station **Communication Facility** R Post Office Correctional Facility A Potable Pump Station DPW WTP Potable Water Treatment Dam 0 EMS Primary Education ship of EOC **Religious** Center Vantage Secondary Education SUB Electrical Substation Senior Center F Fire Station A Shelter Food Pantry Wastewater Pump Fuel Wastewater Treatment Government Building • Well Azardous Material Facility Municipal Boundary Hazard Area Carbonate Soils ----- Rail Line Slope > 15% Interstate Wildfire Risk U.S. Route Extreme Very High Waterbody High **New Development** Anticipated Township of Recent Frankford The map and data depicted are considered approximate and suitable for most planning purposes. Mapped hazard areas, geographic boundaries and other features depicted may not absolutely align due to the differing resolution of available data. **M** Township of Walpack 20 Borough ship Miles Branchvill npt a Sources: NJDOT - 2017; NJ Geographic Information Network - 2014; SC GIS - 2020; DRBC - 2005; NJOGIS - 2020; ESRI 2002/2020; USGS 1999/2014; NJDEP 2009 Data Sc

Figure 9.18-3 Township of Sandyston Hazard Area Extent and Location Map 3





	А	ction W	orkshee	t								
Project Name:	Sandyston Early War	rning Sys	stems									
Project Number:	2021-Sandyston-001	L										
	Ri	sk / Vul	nerabili	ty								
Hazard(s) of Concern:	All Hazards											
Description of the Problem:	located at Fire Statio Township Municipal CR-560/Tuttles Corr broken and is no lon communications for	andyston Township has an early warning siren for hazard events. The sirens are boated at Fire Stations #1 and #2. Fire Station #1 is located near the Sandyston downship Municipal Building along CR-645 and Fire Station #2 is located in Layton on R-560/Tuttles Corner-Dingmans Ferry Road. Station #2's early warning siren is roken and is no longer functional, thereby limiting a source of emergency communications for residents in the northern portion of the Township. Action or Project Intended for Implementation										
Description of the Solution:	The Township proposes to replace and augment its early warning capabilities at the Fire Station with a siren with enhanced reach and functionality.											
Is this project related to a C Lifeline?	Critical Facility or	ical Facility or Yes No										
Level of Protection:	N/A			ted Benefits avoided):	Increased emergency warnings							
Useful Life:	30 years		Goals N	let:	1, 5							
Estimated Cost:	Low		Mitigat	ion Action Type:	Local Plans and Regulations							
		for Imp	lementa									
Prioritization:	High			d Timeframe for nentation:	Within three years							
Estimated Time Required for Project Implementation:	6 months			ial Funding	HMGP; BRIC; Township Funds							
Responsible Organization:	Township OEM; Fire Department		Mecha	lanning nisms to be Used ementation if any:	Hazard Mitigation							
	Three Alternatives	6 Consid										
	Action		E	stimated Cost	Evaluation							
Alternatives:	Sirens fail Alternate communic	ations		\$0 Medium	Response inhibited Cost prohibitive							
Alter natives:				_	Enhanced response							
	Siren enhanceme	Low	capabilities									
	Progress Re	port (fo	r plan m	aintenance)								
Date of Status Report:												
Report of Progress:												
Update Evaluation of the Problem and/or Solution:												





Action Worksheet						
Project Name:	Sandyston Early Warning Systems					
Project Number:	2021-Sandyston-001					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1					
Property Protection	1					
Cost-Effectiveness	1	Cost-effective project				
Technical	1	Technically feasible project				
Political	1					
Legal	1	The Township has the legal authority to conduct the project.				
Fiscal	0	Project will require capital funding.				
Environmental	1					
Social	1					
Administrative	1					
Multi-Hazard	1	Addresses all hazards				
Timeline	1					
Agency Champion	1	Township OEM; Fire Department				
Other Community Objectives	1					
Total	13					
Priority (High/Med/Low)	High					



		Action Wo	rksheet			
Project Name:	Delaware River Brid	Delaware River Bridge Retrofit				
Project Number:	2021-Sandyston-005					
	-		orahility			
Hazard(s) of Concern:	Risk / Vulnerability Flood; Geologic; Hazardous Materials; Hurricane and Tropical Storm; Nor'Easter; Severe Weather; Severe Winter Weather					
Description of the Problem:	The Dingman's Ferry bridge is the primary access road between the Township and Pennsylvania. The Bridge is privately owned and vulnerable to flooding.					
Action or Project Intended for Implementation						
Description of the Solution:	the The Township proposes to protect the roadway crossing the Delaware River from damages and debris during hazard events. The Township will work with the bridge's owners, the County, and NJDEP to protect the bridge from debris during a flood.					
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🛛		
Level of Protection:	N/A			ed Benefits avoided):	Continued bridge access following hazard events	
Useful Life:	30 years		Goals Met:		1, 2, 5, 6	
Estimated Cost:	High		Mitigation Action Type:		Structure and Infrastructure Project	
Plan for Implementation						
Prioritization:	High		Desired Timeframe for Implementation:		Within five years	
Estimated Time Required for Project Implementation:	2 years		Potenti Sources	al Funding S:	Private funds; BRIC; NJDOT; HMGP	
Responsible Organization:	NJDEP; Sussex County; Private owners; Township Administration		Mechar	lanning iisms to be Used ementation if any:	Hazard Mitigation	
Three Alternatives Considered (including No Action)						
	Action		Estimated Cost		Evaluation	
	No Action		High		Bridge damage	
Alternatives:	Bridge abandonment/reconstruction		High		Not feasible	
	Bridge retrofit		High		Most cost effective	
Progress Report (for plan maintenance)						
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Action Worksheet						
Project Name:	Delaware River Bridge Retrofit					
Project Number:	2021-Sandyston-005					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1					
Property Protection	1					
Cost-Effectiveness	1	Cost-effective project				
Technical	1	Technically feasible project				
Political	1					
Legal	0					
Fiscal	0	Project will require capital funding from public/private				
Environmental	1					
Social	1					
Administrative	0					
Multi-Hazard	1	Addresses all hazards				
Timeline	1					
Agency Champion	1	NJDEP; Sussex County; Private owners; Township Administration				
Other Community Objectives	1					
Total	11					
Priority (High/Med/Low)	High					





	A	ction W	orkshee	t		
Project Name:		Repetitive Loss Properties				
Project Number:	2021-Sandyston-008	2021-Sandyston-008				
Risk / Vulnerability						
Hazard(s) of Concern:	Flood, Severe Weather					
Description of the Problem:	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Township has 1 repetitive loss property but other properties may be impacted by flooding as well.					
Action or Project Intended for Implementation           Description of the Solution:         Conduct outreach to flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).					preferred mitigation nformation and develop a ement	
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂		
Level of Protection:	1% annual chance floo event + freeboard (in accordance with flood ordinance)		Estimated Benefits (losses avoided):		Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.	
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)		Goals Met:		2	
Estimated Cost:	\$500,000		Mitigation Action Type:		Structure and Infrastructure Project	
	Plan	for Imp	lementa	tion	110,000	
Prioritization:	High		Desired Timeframe for Implementation:		6-12 months	
Estimated Time Required for Project Implementation:	Three years		Potential Funding Sources:		FEMA HMGP and FMA, local cost share by residents	
Responsible Organization:	NFIP Floodplain Administrator, suppor homeowners	ted by	Mechai	lanning nisms to be Used ementation if any:	Hazard Mitigation	
	Three Alternatives	Consid				
	Action		E	stimated Cost	Evaluation	
Alternatives:	No Action Elevate homes		\$0		Current problem continues When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads	
	Elevate roads		\$500,000		Elevated roadways would not protect the homes from flood damages	
	Progress Rep	port (fo	r plan ma	aintenance)		
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Action Worksheet					
Project Name:	Repetitive Loss Properties				
Project Number:	2020-Sandyston-008				
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate			
Life Safety	1	Families moved out of high-risk flood areas.			
Property Protection	1	Properties removed from high-risk flood areas.			
Cost-Effectiveness	1	Cost-effective project			
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	0	Project would remove families from the flood prone areas of the Township.			
Administrative	0				
Multi-Hazard	1	Flood, Severe Weather			
Timeline	0				
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners			
Other Community Objectives	1				
Total	10				
Priority (High/Med/Low)	High				





# 9.19 TOWNSHIP OF SPARTA

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

# 9.19.1 Hazard Mitigation Planning Team

The Township of Sparta 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).

Primary Point of Contact		Alternate Point of Contact			
Name / Title: Neil Spidaletto, OEM Coordinator Address: 65 Main Street, Sparta, NJ 07871 Phone Number: (973) 729-6121 Email: nspidaletto@spartapd.org		Name / Title: William Close, Deputy OEM Coordinator Address: 65 Main Street, Sparta, NJ 07871 Phone Number: (973) 726-3600 Email: william.close@spartanj.org			
NFIP Floodplain Administ Name / Title: Stan Puszcz, P. Address: 11 Park Lake Road, Phone Number: 973-300-900 Email: stan.puszcz@cpenging	E., Township Engineer Sparta, NJ 07871 3				
Name	Title	Method of Participation			
Neil Spidaletto	OEM Coordinator; Chief of Police	Primary point of contact; attended the kickoff meeting, annex training, risk assessment meeting and mitigation strategy workshop; provided data and information for the annex update; reviewed annex*			
William Close	Deputy OEM Coordinator	Alternate point of contact			
Stan Puszcz, P.E.	Township Engineer	NFIP floodplain administrator; attended the annex training and risk assessment meeting; provided data and information for the annex update; reviewed annex*			
John Cahillane	Engineer	Provided data and information, contributed to the mitigation strategy			
Thomas McIntyre	Deputy OEM Coordinator	Attended the annex training			
Christine Quinn	Mayor	Reviewed annex*			
Grant W. Rome	Fiscal/CFO	Reviewed annex*			
Domenick Carnevale	Construction Official	Reviewed annex*			
Diane Katzenstein	Planner	Reviewed annex*			
Justin Muldoon	Fire Chief	Reviewed annex*			

### Table 9.19-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





# 9.19.2 Jurisdiction Profile

Sparta Township is located in southwestern Sussex County and has a total area of 38.9 square miles. The Township is bordered to the north by Lafayette and Hardyston Townships, to the south by Byram Township and Hopatcong Borough, to the east by Morris County and to the west by Andover and Lafayette Townships. Streams that flow through Sparta Township include: Wallkill River and its tributaries, Russia Brook tributaries, Sparta Junction Brook, Wildcat Branch, Sparta Glen Brook, Tar Hill Brook tributaries, and Lubbers Run tributaries. Lake Mohawk is a large lake located in the southwest corner of the Township. Other lakes and ponds are located throughout the Township as well. The following unincorporated communities are located within the Township: Ackerson, Woodruffs Gap, Houses Corner, Sparta Junction, Sussex Mills, Upper Mohawk, and Lake Mohawk.

According to the U.S. Census, the 2010 population for the Township of Sparta was 19,722. The estimated 2018 population was 18,841, a 4.5 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 5.3 percent of the population is 5 years of age or younger and 13.7 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.

# 9.19.3 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 9.18-2 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.

Type of Development	20	)15	2(	)16	20	)17	2(	)18	2(	)19
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	2	0	1	0	7	0	22	0	95	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed- use, etc.)	6	0	3	0	1	0	7	0	5	0
Property or Development Name	Type # of Units , of Development Structures		ctures	<b>Location</b> (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
	Recent Maj	or Developme	ent and I	nfrastruct	ure from	2015 to P	resent			
North Village	Residential	/Commercial	100+ Residen Units & Comme	: 8	Block 1 Lots 4.0 7, 8, 89 91.01	02, 5, 6,	Area, H Materia Inciden	t Hazard azardous l t Area, f Incident Area,	95% Coi	mplete

### Table 9.19-2. Recent and Expected Future Development



White Lake Technical Center	Commercial	8-10 Commercial Sites	Block 16001, Lots 14-21; Block 16003, Lots 1-5	Railway Incident Hazard Area, Nuclear Incident Hazard Area, Carbonate Soil	75% Complete
Gas Light Court	Residential	18 Single Family Homes	Block 27006, Lots 5-7 & 12-29	Railway Incident Hazard Area, Carbonate Soil, Steep Slopes, Nuclear Incident Area, Wildfire	50% Complete
Known	or Anticipated Major Dev	velopment and Infr	astructure in the N	Next Five (5) Years	
		None Identified			

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

# 9.19.4 Capability Assessment

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





		Authority that		been integra	ts of the HMP nted into your ances/plans?	
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Codes, Ordinances, & Requirements						
Building Code	Yes	State & Local	Yes	Yes	-	
Comment: • State mandated on local level under NJA Adopted 9/3/2019 • This code follows State Uniform Constru		Ū	<i>ı.)</i> .	Edition, 2018, NJ	AC 5:24-3.14	
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
<ul> <li>State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and ma</li> <li>This code follows Chapter 18, Comprehe</li> <li>Part of the Code objectives is to secure s</li> </ul>	to have current zo aster plan. ensive Land Mana	oning and other land de gement Code.	velopment ordin	ances after the pl		
Cold Martin and	Yes	Local	municipality has a	Yes	_	
	-37. Grant of pow equire approval oj	er; referral of proposed f subdivision plats by re	Planning Board d ordinance; cou solution of the p	nty planning boa. lanning board as	a condition for	
The governing body may by ordinance re	-37. Grant of pow equire approval of coording officer and r any development exempt from such s the planning board of this act . Dictat of the act . Dictat ounty planning board for the approva- ton.	er; referral of proposed f subdivision plats by re ad approval of site plan. c, except that subdivision ite plan review and app d whenever the board of ed by the Municipal Lai ard shall provide for the	Planning Board I ordinance; cou solution of the p s by resolution of n or individual l nor vindividual l proval; provided f adjustment has nd Use Law. NJ e review of all su	nty planning boa. lanning board as f the planning bo ot applications fo that the resolution jurisdiction over Statute 40:27-6.2 ıbdivisions of land	a condition for ard as a r detached one on of the board a subdivision - the board of d within the	
<ul> <li>P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance re the filing of such plats with the county re condition for the issuance of a permit foo or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b.</li> <li>commissioners of any county having a co county by said county planning board an forth and limited hereinafter in this secti</li> <li>This ordinance follows Chapter 18 of the</li> </ul>	-37. Grant of pow equire approval of coording officer and r any development exempt from such s the planning board of this act . Dictat of the act . Dictat ounty planning board for the approva- ton.	er; referral of proposed f subdivision plats by re ad approval of site plan. c, except that subdivision ite plan review and app d whenever the board of ed by the Municipal Lai ard shall provide for the	Planning Board I ordinance; cou solution of the p s by resolution of n or individual l nor vindividual l proval; provided f adjustment has nd Use Law. NJ e review of all su	nty planning boa. lanning board as f the planning bo ot applications fo that the resolution jurisdiction over Statute 40:27-6.2 ıbdivisions of land	a condition for ard as a r detached one on of the board a subdivision - the board of d within the	
Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance ra the filing of such plats with the county re condition for the issuance of a permit for or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a co county by said county planning board ar forth and limited hereinafter in this secti This ordinance follows Chapter 18 of the Stormwater Management Comment: See Title 7 of the NJ Administrative Cod The Engineering Department is responsi The Township Engineer, Planning Board	-37. Grant of pow equire approval og ecording officer an r any development xempt from such s the planning boar of this act . Dictat ounty planning boar ion. e Township Code. Yes yes	er; referral of proposed (subdivision plats by re ad approval of site plan. c, except that subdivision ite plan review and app d whenever the board of ed by the Municipal Lai ard shall provide for the l of those subdivisions of Local	Planning Board I ordinance; cou solution of the p s by resolution of n or individual l rroval; provided f adjustment has nd Use Law. NJ e review of all st uffecting county Yes Chapter 18 of t pave all complet	nty planning boal lanning board as f the planning bo ot applications fo that the resolution s jurisdiction over Statute 40:27-6.2 ubdivisions of lan road or drainage Yes he Township Cod	a condition for ard as a r detached one n of the board a subdivision - the board of d within the facilities as set	
Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance ra the filing of such plats with the county re condition for the issuance of a permit for or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a cc county by said county planning board an forth and limited hereinafter in this secti This ordinance follows Chapter 18 of the Stormwater Management Comment: See Title 7 of the NJ Administrative Cod The Engineering Department is responsi The Township Engineer, Planning Board Post-Disaster Recovery	-37. Grant of pow equire approval oj ccording officer ar r any development exempt from such s the planning boar of this act . Dictat ounty planning boa d for the approva ion. e Township Code. Yes e, N.J.A.C. 7:8 ible for this ordina	er; referral of proposed (subdivision plats by re ad approval of site plan. c, except that subdivision ite plan review and app d whenever the board of ed by the Municipal Lai ard shall provide for the l of those subdivisions of Local	Planning Board I ordinance; cou solution of the p s by resolution of n or individual I f adjustment has and Use Law. NJ e review of all st uffecting county Yes Chapter 18 of t	nty planning boal lanning board as f the planning bo ot applications fo that the resolution s jurisdiction over Statute 40:27-6.2 ubdivisions of lan road or drainage Yes he Township Cod	a condition for ard as a r detached one n of the board a subdivision - the board of d within the facilities as set	
Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance re the filing of such plats with the county re condition for the issuance of a permit for or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a co county by said county planning board an forth and limited hereinafter in this secti This ordinance follows Chapter 18 of the Stormwater Management Comment: See Title 7 of the NJ Administrative Cod The Engineering Department is responsi The Township Engineer, Planning Board Post-Disaster Recovery Comment:	-37. Grant of pow equire approval og ecording officer an r any development xempt from such s the planning boar of this act . Dictat ounty planning boar ion. e Township Code. Yes yes	er; referral of proposed f subdivision plats by re ad approval of site plan. except that subdivision ite plan review and app d whenever the board of ed by the Municipal Lai ard shall provide for the l of those subdivisions of Local Local - State, Division of	Planning Board I ordinance; cou solution of the p s by resolution of n or individual l rroval; provided f adjustment has nd Use Law. NJ e review of all st uffecting county Yes Chapter 18 of t pave all complet	nty planning boal lanning board as f the planning bo ot applications fo that the resolution s jurisdiction over Statute 40:27-6.2 ubdivisions of lan road or drainage Yes he Township Cod	a condition for ard as a r detached one n of the board a subdivision - the board of d within the facilities as set	
Comment: P.L. 1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance re the filing of such plats with the county re condition for the issuance of a permit fou or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a co county by said county planning board an forth and limited hereinafter in this secti This ordinance follows Chapter 18 of the Stormwater Management Comment: See Title 7 of the NJ Administrative Cod The Engineering Department is responsi	-37. Grant of pow equire approval op ecording officer and r any development xempt from such s the planning boar of this act . Dictat ounty planning boar of the approva- ion. e Township Code. Yes e, N.J.A.C. 7:8 ible for this ordina d Engineer, and Ze No Yes contract of sale, a Estate Commissio mities, the type of	er; referral of proposed f subdivision plats by re ad approval of site plan. , except that subdivision site plan review and app d whenever the board og ed by the Municipal Lai ard shall provide for the l of those subdivisions of Local Local Local State, Division of Consumer Affairs all purchasers must reco on. The POS provides in title and ownership inte	Planning Board I ordinance; cou solution of the p s by resolution of n or individual l broval; provided f adjustment has nd Use Law. NJ e review of all su (ffecting county Yes Chapter 18 of t vere all complete No Yes eive a New Jerses formation such rest being offere	nty planning boal lanning board as f the planning bo of applications fo that the resolutios s jurisdiction over Statute 40:27-6.2 ubdivisions of lan- road or drainage Yes Yes he Township Cod ed NJDEP stormy - No No	a condition for ard as a r detached one n of the board a subdivision - the board of d within the facilities as set - e. e. vater training. - - Statement oletion dates fo	

# Table 9.19-3. Planning, Legal and Regulatory Capability

\_\_\_\_\_



		Authority that		been integra	ts of the HMP ated into your ances/plans?
	<b>Do you have</b> <b>this?</b> (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>State Mandated on a municipal level. Se Redevelopment Plan provides for the development Plan provides for the developmental regulations make</li> <li>These ordinance in compliance with Characteria</li> </ul>	lineation of Growt s the Plan Endorse	h Areas and Environs;	Use of the endor management st	sed plans in the	
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
review. NJ Statute 40:27-6.2: The board review of all subdivisions of land within affecting county road or drainage facilit planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publ given to the county planning board at let a copy of the official notice of the public	the county by said ies as set forth and ile of the planning planning board a notify the county djoining county ra ic lands shown on ast 10 days prior to hearing together	county planning board d limited hereinafter in and zoning ordinances copy of the planning a planning board of the in oads or other county lan the county master plan o the public hearing the with a copy of the prope	l and for the app this section. 40: of all municipal nd zoning ordinu- ntroduction of a nds, or lands lyin or official coun- pereon by persond osed ordinance.	roval of those su 27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 fee ty map. Such no al delivery or by o	bdivisions that county y, each icipality in effec nendment of t of a municipan tice shall be certified mail of
The Planning Department is responsible Environmental Protection	<i>for these requirer</i> Yes	nents in compliance wit Local	<i>th Chapter 18 of</i> No	<i>the Township Co</i> Yes	ode.
Comment:	1 05	Local	INO	1 05	-
<ul> <li>Chapter 18, Comprehensive Land Mana         <ul> <li>Part of the Code objectives is urban sprawl and degradatio</li> <li>Chapter 25 of the Township Code establ Mohawk Country Club.</li> </ul> </li> </ul>	to promote the co n of the environme	ent through improper u	se of land;		-
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	-
Comment:		Local			
<ul> <li>The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016.</li> <li>The Construction official is responsible.</li> <li>It is the purpose of this chapter to promodute to flood conditions in specific areas         <ul> <li>a. Protect human life and hete</li> <li>b. Minimize expenditure of pi</li> <li>c. Minimize the need for resc the general public;</li> <li>d. Minimize damage to public streets and bridges located in</li> <li>f. Help maintain a stable tax</li> </ul> </li> </ul>	lood losses. They ity must be review e. Regulations for for this ordinance the the public heal by provisions desi ulth; ublic money for co ue and relief effor ess interruptions; c facilities and util a areas of special f	do not require local add ed for compliance with r the Flood Control Haz in compliance with Cha th, safety and general w gned: stly flood control projects associated with flood ities such as water and lood hazard;	option but as eny these regulation zards Act were a apter 28 of the T velfare and to mi cts; ing and generali gas mains, elect	forced by the NJI as. In addition, p dopted in 2007 a fownship Code. inimize public and ly undertaken at a ric telephone and	DEP, the articipation in nd amended d private losses the expense of d sewer lines,
as to minimize future flood by g. Ensure that potential buye	light areas; rs are notified that	t property is in an area	of special flood	hazard; and	
	· · ·				
Wellhead Protection	Yes	State	Yes	Yes	-
Comment: • The NJ State Safe Drinking Water Act (1 acts to protect the quality of drinking wa for the Safe Drinking Water Act were ad	ter. They do not r	equire local adoption a	is they are enfor		





				been integra	ts of the HMP ated into your ances/plans?	
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable	
Emergency Management	Yes	Federal, State & Local	No	Yes	-	
Comment: • The Office of Emergency Management	is astablished by C	hantar 2 27 of the Town	nshin Coda			
Climate Change	No	-	No	-	-	
Comment:		1				
Disaster Recovery Ordinance	No	-	No	-	-	
Comment:						
Disaster Reconstruction Ordinance	No	-	No	-	-	
Comment:						
Planning Documents						
Comprehensive / Master Plan	Yes	Local	Yes	Yes	_	
important to the development of the co municipalities within the county in any	unty. The county pla matters whatsoever	r which may concern th	oment, and such ourage the co-op e integrity of the	other features as eration of the loc county master pl	may be al lan and to	
<ul> <li>important to the development of the comunicipalities within the county in any advise the board of chosen commission expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be This plan was adopted in 1984.</li> </ul>	unty. The county pla matters whatsoeven ners with respect to al Land Use Law (M n and requires that consistent with the	unning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no	oment, and such purage the co-op e integrity of the lopment program Aug 1, 1976 40:. are a master pla t be benefitted fr	other features as eration of the loc county master pl ns and budgets fo 55D-28 provides n and update it e	may be al an and to r capital the required very 6 years.	
<ul> <li>important to the development of the comunicipalities within the county in any advise the board of chosen commission expenditures. Per State of NJ Municipa components of a municipal Master Pla Further, all zoning ordinances must be</li> <li>This plan was adopted in 1984.</li> <li>The Planning Department is responsib</li> </ul>	unty. The county pla matters whatsoeven ners with respect to al Land Use Law (M n and requires that consistent with the	unning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no	oment, and such purage the co-op e integrity of the lopment program Aug 1, 1976 40:. are a master pla t be benefitted fr	other features as eration of the loc county master pl ns and budgets fo 55D-28 provides n and update it e	may be al an and to r capital the required very 6 years.	
<ul> <li>important to the development of the comunicipalities within the county in any advise the board of chosen commission expenditures. Per State of NJ Municipal Components of a municipal Master Pla Further, all zoning ordinances must be</li> <li>This plan was adopted in 1984.</li> <li>The Planning Department is responsib</li> </ul>	unty. The county pla matters whatsoeven ners with respect to al Land Use Law (M n and requires that consistent with the le for this plan in co Yes	unning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no ompliance with the Mas Local	oment, and such ourage the co-op e integrity of the lopment program Aug 1, 1976 40:: are a master pla t be benefitted fr ter Plan.	other features as eration of the loc county master pins and budgets fo 55D-28 provides n and update it er om a presumption	al lan and to r capital the required very 6 years.	
<ul> <li>important to the development of the comunicipalities within the county in any advise the board of chosen commission expenditures. Per State of NJ Municipic components of a municipal Master Pla Further, all zoning ordinances must be This plan was adopted in 1984.</li> <li>The Planning Department is responsib</li> <li>Capital Improvement Plan</li> <li>Comment: The Engineering Department and DPI</li> </ul>	unty. The county pla matters whatsoeven ners with respect to al Land Use Law (M n and requires that consistent with the le for this plan in co Yes	unning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no ompliance with the Mas Local	oment, and such ourage the co-op e integrity of the lopment program Aug 1, 1976 40:: are a master pla t be benefitted fr ter Plan.	other features as eration of the loc county master pins and budgets fo 55D-28 provides n and update it er om a presumption	may be al lan and to r capital the required very 6 years. n of validity. -	
important to the development of the co municipalities within the county in any advise the board of chosen commission expenditures. Per State of NJ Municipal components of a municipal Master Pla Further, all zoning ordinances must be This plan was adopted in 1984. The Planning Department is responsib Capital Improvement Plan Comment: The Engineering Department and DP Disaster Debris Management Plan	unty. The county play matters whatsoeven ners with respect to al Land Use Law (M n and requires that e consistent with the le for this plan in co Yes W is responsible for	unning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no ompliance with the Mas Local	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr ter Plan. No	other features as eration of the loc county master pins and budgets fo 55D-28 provides n and update it er om a presumption	may be al lan and to r capital the required very 6 years. n of validity. - 2021-Sparta	
important to the development of the co municipalities within the county in any advise the board of chosen commission expenditures. Per State of NJ Municipu components of a municipal Master Pla Further, all zoning ordinances must be This plan was adopted in 1984. The Planning Department is responsib Capital Improvement Plan Comment: The Engineering Department and DPI Disaster Debris Management Plan Comment:	unty. The county play matters whatsoeven ners with respect to al Land Use Law (M n and requires that e consistent with the le for this plan in co Yes W is responsible for	unning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no ompliance with the Mas Local	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr ter Plan. No	other features as eration of the loc county master pins and budgets fo 55D-28 provides n and update it er om a presumption	may be al lan and to r capital the required very 6 years. n of validity. - 2021-Sparta	
important to the development of the co municipalities within the county in any advise the board of chosen commission expenditures. Per State of NJ Municipal components of a municipal Master Pla Further, all zoning ordinances must be This plan was adopted in 1984. The Planning Department is responsib Capital Improvement Plan Comment: The Engineering Department and DP Disaster Debris Management Plan Comment: Floodplain or Watershed Plan	unty. The county play matters whatsoeven ners with respect to al Land Use Law (M n and requires that consistent with the le for this plan in co Yes V is responsible for No	unning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no ompliance with the Mas Local	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr ter Plan. No No	other features as eration of the loc county master pl ns and budgets fo 55D-28 provides n and update it e om a presumption No	may be al lan and to r capital the required very 6 years. n of validity. - 2021-Sparta	
important to the development of the co municipalities within the county in any advise the board of chosen commission expenditures. Per State of NJ Municipal components of a municipal Master Pla Further, all zoning ordinances must be This plan was adopted in 1984. The Planning Department is responsib Capital Improvement Plan Comment: The Engineering Department and DP Disaster Debris Management Plan Comment: Floodplain or Watershed Plan Comment: Stormwater Management Plan	unty. The county play matters whatsoeven ners with respect to al Land Use Law (M n and requires that consistent with the le for this plan in co Yes V is responsible for No	unning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no ompliance with the Mas Local	ment, and such purage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr ter Plan. No No	other features as eration of the loc county master pl ns and budgets fo 55D-28 provides n and update it e om a presumption No	may be al lan and to r capital the required very 6 years. n of validity. - 2021-Sparta	
<ul> <li>important to the development of the comunicipalities within the county in any advise the board of chosen commission expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be This plan was adopted in 1984.</li> </ul>	unty. The county play matters whatsoeven ners with respect to al Land Use Law (M n and requires that consistent with the le for this plan in co Yes V is responsible for No No Yes J.A.C. 7:8) rules we nd municipal storms new (proposed) dev quantity controls, al stormwater manag e of stormwater runog thin or to discharge epartment under the	unning board shall enco r which may concern th the formulation of deve (LUL) L. 1975, s. 2, eff each municipality prep Master Plan or will no ompliance with the Mas Local this plan. - Local ere published in the Fel water management plan velopment. The design a nd runoff quality control es, preserving natural a f quantity control, storn runoff from the major a e Flood Hazard Area C	ment, and such purage the co-op e integrity of the lopment program Aug 1, 1976 40:: are a master pla t be benefitted fr ter Plan. No No Yes bruary 2, 2004 N as and establish t and performance ols. The rules em, ding minimizing drainage features mwater runoff qu development into ontrol Act Rules	other features as eration of the loc county master pl ns and budgets fo 55D-28 provides n and update it er om a presumption No - - - - - - - - - - - - - - - - - -	may be al an and to r capital the required very 6 years. n of validity. - 2021-Sparta 009 - 2021-Sparta 009 - rules set forth anagement w development mary inizing clso set forth i the prohibitic	



		Authoritythat		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	<b>Do you have</b> this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, wil management plan and implementing ord basin cleaning); implementing solids an education component. Urban Water Management Plan	tter Act. These NJ sewer systems, kn such as universitt am establishes the ese sources. The S dlife feeding, prop linance(s); requiri	PDES rules govern the own as MS4s. Under th es and hospitals, and S Statewide Basic Requi tatewide Basic Require er waste disposal, etc.) ng certain maintenance	issuance of perm is program, perm tate, interstate a rements that mu, nents include mo the developmen activities (such	nits to entities tha nits must be secur nd federal agenci st be implemented easures such as: t nt of a municipal as street sweepin	t own or red by es that operate l to reduce the adoption of stormwater g and catch
Comment:	110	-	110		
Habitat Conservation Plan	No		No	_	
Comment:	INU	-	NO	-	-
	Ne	_	No	_	
Economic Development Plan Comment:	No	-	No	-	-
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
structures, and site preparation. This la • Sparta Township is not located in a coa. Community Wildfire Protection Plan	1	through NJ's Coastal Z	one managemen No	t Rules N.J.A.C. 7 -	7:7E-1 et seq.
Comment:					
Community Forest Management Plan	No	-	No	-	-
Comment:		1			
Transportation Plan	Yes	Local	No	No	-
Comment: The Planning Department is responsible	e for this plan, whi	ch is an element of the	Master Plan.		
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	No	-
Comment:	for this al.	ah ia an closer ( ) d	Manton DL		
The Planning Department is responsible Other: Watershed Management or Protection	e for this plan, whi Yes	<i>ch is an element of the</i> Local	Master Plan. No	No	
Plan		Local		110	-
Plan           Comment: The Planning Department is responsible			Master Plan.		-





		Authority that		been integra	ts of the HMP ated into your ances/plans?			
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.			
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-			
necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State • The Police Department is responsible fo	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.							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-			
Comment:								
Post-Disaster Recovery Plan	No	-	No	-	-			
Comment:								
Continuity of Operations Plan	No	-	No	-	-			
Comment:								
Public Health Plan	No	-	No	-	-			
Comment:								
Other	No	-	No	-	-			
Comment:								

### Table 9.19-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes; Planning/Zoning Department
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

#### **ADMINISTRATIVE AND TECHNICAL CAPABILITY**

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

## Table 9.19-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning/Zoning Department
Mitigation Planning Committee	Yes	Public Safety Committee, STEP, CERT
Environmental Board / Commission	Yes	Environmental Commission
Open Space Board / Committee	No	Community Development
Economic Development Commission / Committee	Yes	Community Development
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Department of Public Works & Sparta Police Department
Maintenance program to reduce risk	No	Department of Public Works





Staff/Personnel Resource	Available?	Department/Agency/Position		
Mutual aid agreements	Yes	Sparta Police Department, Fire Department and Surrounding Towns		
Technical/Staffing Capability				
Planners or engineers with knowledge of land development and land management practices	Yes	Town Engineer		
Engineers or professionals trained in building or infrastructure construction practices	Yes	Town Engineer		
Planners or engineers with an understanding of natural hazards	Yes	Town Engineer		
Staff with training in benefit/cost analysis	Yes	Town Engineer		
Staff with training in green infrastructure	Yes	Town Engineer		
Staff with education/knowledge/training in low impact development	Yes	Town Engineer		
Surveyor	No	-		
Stormwater engineer	Yes	Town Engineer		
Personnel skilled or trained in GIS applications	Yes	Town Engineer		
Local or state water quality professional	Yes	Town Engineer		
Scientist familiar with natural hazards in local area	No	-		
Emergency manager	Yes	Police Chief		
Watershed planner	Yes	Town Engineer		
Environmental specialist	Yes	Town Engineer		
Grant writers	Yes	Consultant		
Resilience Officer	No	-		
Other: NFIP Floodplain Administrator	Yes	Construction Official		

# FISCAL CAPABILITY

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

# Table 9.19-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?		
Community Development Block Grants (CDBG, CDBG-DR)	Yes: Grant consultant		
Capital Improvements Project Funding	Yes: Municipal CFO – Township Engineer		
Authority to Levy Taxes for Specific Purposes	Yes: Township Council		
User Fees for Water, Sewer, Gas or Electric Service	Yes: Township Council – Utility Director		
Incur Debt through General Obligation Bonds	Yes: Township Council – Municipal CFO		
Incur Debt through Special Tax Bonds	Yes: Township Council		
Incur Debt through Private Activity Bonds	Yes: Township Council		
Withhold Public Expenditures in Hazard-Prone Areas	Yes: Township Council		
State-Sponsored Grant Programs	Yes: Grant consultant – Township Engineer		
Development Impact Fees for Homebuyers or Developers	No		
Clean Water Act 319 Grants (Nonpoint Source Pollution)	Yes: Grant consultant		
Other: Open Space Acquisition Funding Programs	Yes: Township Engineer		

## EDUCATION AND OUTREACH CAPABILITY

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





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.	No
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.	Environmental Commission
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, briefly describe.	Reverse 911, Outdoor warning signals, Township website/social media

# Table 9.19-7. Education and Outreach Capabilities

### **COMMUNITY CLASSIFICATIONS**

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

#### Table 9.19-8. Community Classifications

Program	Participating?	Classification	Date Classified	
Community Rating System	No	-	-	
Building Code Effectiveness Grading Schedule (BCEGS)	Yes Class 3		2014	
Public Protection (Fire ISO Protection Class)	No	-	-	
Storm Ready Certification	No	-	-	
Firewise Community Classification	No	-	-	
Sustainable Jersey	Yes	Bronze	2009	

#### 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 9.19-9. Adaptive Capacity

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





Hazard	Adaptive Capacity (Capabilities) - Strong/Moderate/Weak
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 and 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 9.19-10. National Flood Insurance Program Compliance

Criterion	Response	
What local department is responsible for floodplain management?	Construction Department	
Who is your floodplain administrator? (name, department/position)	Domenick Carnevale, Construction Official	
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 meets minimum requirements, but the Township is unsure if the program exceeds requirements.	
When was the most recent Community Assistance Visit or Community Assistance Contact?	January 11, 1994	
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.	RMP - Mainstem Delaware River - FY15 (CTP)	
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 like 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, and the Township is not interested in participating.	
How many flood insurance policies are in force in your jurisdiction? * -What is the insurance in force? -What is the premium in force?	46 policies \$12,578,000 insurance in force \$33,046 premium in force	





Criterion	Response
How many total loss claims have been filed in your jurisdiction? * -How many claims are still open or were closed without payment? -What were the total payments for losses?	14 claims \$32,999 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

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

# 9.19.5 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 Sparta'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 9.18-11 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 9.19-11. 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 <sup>rd</sup> and 24th.	Closed roadways; Overtime pay to clear roads
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 enforced social distancing and masking mandates and was impacted by various closures due to the coronavirus pandemic.
July 28, 2020 - August 5, 2020	Tropical Storm Isaias	TBD	A tropical storm produced strong winds and heavy rainfall resulting in power outages throughout New Jersey on August 4th	Power outages; Fallen trees and tree branches; Closed roadways

Source: FEMA 2020, NOAA NCEI 2020

# 9.19.6 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 Sparta 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 Sparta 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 Sparta has significant exposure.

### **REPETITIVE FLOOD LOSSES**

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

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

Source: FEMA 2019 Note: The number of SRL properties excludes RL properties.

### **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.

		Exposure		
Name	Туре	1% Event	0.2% Event	
22-16 Lake Grinnell Dam	Dam	Х	Х	
22-63 Lake Mohawk Dam	Dam	Х	Х	
22-106 Ackerson Mill Dam	Dam	Х	Х	
22-108 Flag Pond Dam	Dam	Х	Х	
22-109 Mud Pond Dam	Dam	Х	Х	
22-136 Foulds Pond Dam	Dam	Х	Х	
22-183 Seneca Lake Dam	Dam	Х	Х	
Sparta Junction	Hazardous Material Facility	Х	Х	

### Table 9.19-12. Critical Facilities and Lifelines Flood Exposure

Source: Sussex County Planning Partnership 2020 Note: \*Identified lifeline

Sparta Township's dams are privately owned.

### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- There are many lakes, ponds, rivers, streams, and tributaries throughout the Township that are adjacent to developed lots, including Township facilities such as Town Hall and the Township Library. Infrastructure in the Township should be hardened against flooding events to protect continuity of operations.
- Groundwater in the Germany Flats area of Township requires protection from potential contamination.
- The shelter located within the Sparta Ambulance Service building on Sparta Avenue lacks backup power
- The Township would like to use the DPW building located on Prices Lane as a safe room for tornadoes and hurricanes. The Township has already installed a backup generator to support the site.
- Windows of the Germany Flats pump facility are not impact resistant and pose a threat in the event of a high wind event.





- Glen Brook and Wallkill River are prone to erosion of streambanks, threatening homes, roadways, and a JCP&L substation.
- The Township does not participate in the Firewise program. Despite low wildfire risk, the Township is interested in enrollment.
- West Mountain Road floods regularly between the High School football field and Main Street.
- The Township 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 Township of Sparta 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 Sparta. The Township of Sparta 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 Sparta agreed with the calculated hazard rankings.

Dam Failure	Disease Outbrea	ak Drought	Earthqu	ake	Flood		Geologic
Medium	Medium	Medium	Low	Low		Medium	
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter		ere ither	Severe Winter Weather	Wildfire
Medium	High	Medium	High	Hi	gh	High	Low

# 9.19.7 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 9.18-15 and Table 9.18-16 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.





			Status (In Progress, No		the 2021 HMP odate?
201	6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Sparta-1 (revised old #1)	Ensure continuity of operations at critical facilities. At this time the following was identified: Emergency generator for shelter located within Sparta Ambulance Service building located on Sparta Avenue	Emergency Management	In Progress	х	2021-Sparta- 003
Sparta-2 (old #2)	Harden Sparta DPW building located on Prices Lane to FEMA 361 Standards	Emergency Management	In Progress	x	2021-Sparta- 004
Sparta-3 (old #3)	Retrofit impact resistant windows and shutters on Germany Flats Pump Facility located on Park Lake Drive.	Emergency Management	In Progress	Х	2021-Sparta- 005
Sparta-4 (old #4)	Stream bank stabilization along Sparta Glen Brook (3500 feet)	Emergency Management	No Progress	x	2021-Sparta- 006
Sparta-5 (old #5)	Stream bank stabilization along Wallkill River at Station Park (1500 feet)	Township Engineer	No Progress	х	2021-Sparta- 006
Sparta-6 (old #7)	Implement Fire Wise Program throughout the Township.	Fire Department	No Progress	Х	2021-Sparta- 007
Sparta-7 (revised old #11)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness. Enhance STEP and CERT programs.	Emergency Management	Ongoing Capability		
Sparta-8 (new)	Replace Culvert at West Mountain Road	Township Engineer	In Progress	Х	2021-Sparta- 008
Sparta-9 (new)	Lake Grinell Dam/ Spillway Reconstruction	Township Engineer	No Progress; not Township owned		

Table 9.19-14	Status	of Previous	HMP	<b>Mitigation Actions</b>	
---------------	--------	-------------	-----	---------------------------	--

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

• The Township installed emergency generators for the building and fuel island at the DPW facility located on Prices Lane.

### **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Township of Sparta 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 Sparta 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 9.18-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Sparta 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 9.18-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





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Table 9.19-15. 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- Sparta- 001	Flood Damage Prevention/ Mitigation	<b>Problem</b> : There are many lakes, ponds, rivers, streams, and tributaries throughout the Township that are adjacent to developed lots, including Township facilities such as Town Hall and the Township Library. Infrastructure in the Township should be hardened against flooding events to protect continuity of operations.	Existing	Flood	2, 6	Engineeri ng, OEM	FEMA HMGP and PDM, BRIC, USDA Communit y Facilities Grant Program, Emergency	Protect ion of infrastr ucture from	High	Wi thi 5	Hig h	SIP	PR, PP
001 Mitigation		<b>Solution:</b> The Township will undertake a feasibility assessment to determine what must be done to harden infrastructure against flooding and construct the cost-effective projects identified to prevent/mitigate flooding damage.					Manageme nt Performanc e Grants (EMPG) Program, Township Budget	flood damag es		ye ars			
2021- Sparta- 002	Groundwater Quality Protection	Problem: Groundwater in the Germany Flats area of Township requires protection from potential contamination. Solution: Engineering/utilities will research potential equipment/technologies that could be put in place to protect groundwater. If viable, the Township will work to use these equipment/technologies in the Township's water supply system.	Existing	Hazardous Materials	1, 2, 6	Engineeri ng, Utilities	BRIC, HMGP, Township budget	Protect ion of ground water from contam ination	High	Wi thi 5 ye ars	Hig h	SIP, NSP	PR, NR
2021- Sparta- 003	Backup Power for Sparta Ambulance Service	<ul> <li>Problem: Backup power sources are necessary to maintain critical services for critical facilities. The shelter located within the Sparta Ambulance Service building on Sparta Avenue lacks backup power.</li> <li>Solution: The Engineer will research what size generator is needed to power the Sparta Ambulance Service building. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Sparta Ambulance Service building.</li> </ul>	Existing	Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather	1, 2, 6	Engineer, OEM	FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program,	Ensure s continu ity of operati ons of Sparta Ambul ance Service buildin g	\$50,0 00	Wi thi 5 ye ars	Hig h	SIP	ES



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 Municipal Budget	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2021- Sparta- 004	Harden DPW Building	<b>Problem</b> : The Township would like to use the DPW building located on Prices Lane as a safe room for tornadoes and hurricanes. The Township has already installed a backup generator to support the site. <b>Solution:</b> The Township will work to harden the DPW building using FEMA	Existing	Hurricane, Severe Weather	1, 2, 6	Public Works, Engineer, OEM	HMGP, BRIC, USDA Communit y Facilities Grant Program, Township budget	Safe Room establis hed	Medi um	3 ye ars	Hig h	SIP	PP, ES
2021- Sparta- 005	Harden Germany Flats Pump Facility	361 standards. <b>Problem</b> : Windows of the Germany Flats pump facility are not impact resistant and pose a threat in the event of a high wind event. <b>Solution:</b> The Township will retrofit impact resistant windows and shutters on Germany Flats Pump Facility located on Park Lake Drive.	Existing	Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather	2, 6	OEM, Public Works	HMGP, BRIC, USDA Communit y Facilities Grant Program, Township budget	Protect ion of critical faciliti es	Medi um	Wi thi 5 ye ars	Me diu m	SIP	рр
2021- Sparta- 006	Streambank Stabilization	<ul> <li>Problem: Glen Brook and Wallkill River are prone to erosion of streambanks, threatening homes, roadways, and a JCP&amp;L substation.</li> <li>Solution: The Township will determine the proper stream stabilization techniques for a 3,500 feet section of Glen Brook and a 1,500 section of the Walkill River at Station Park. Once the techniques are established, the Township will implement stream stabilization and continue to monitor the locations to measure success and needs for additional measures.</li> </ul>	N/A	Flood, Hurricane, Nor'Easter, Severe Weather	2	Engineer	HMGP, BRIC, Township budget	Protect from home damag e, road damag e, JCP&L substat ion damag e	Medi um for Glen Broo k, \$1M for Wallk ill River	Wi thi 5 ye ars	Hig h	NSP	NR
2021- Sparta- 007	Firewise	<ul> <li>Problem: The Township does not participate in the Firewise program. Despite low wildfire risk, the Township is interested in enrollment.</li> <li>Solution: The Township will enroll in the Firewise program.</li> </ul>	New and Existing	Wildfire	1, 2, 3, 4, 5	OEM	Township budget	Increas ed wildfir e mitigat ion and prepare dness	Staff time	Wi thi n 5 ye ars	Hig h	LPR, EAP	PR, ES, PI







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- Sparta- 008	Culvert at West Mountain Road	Problem: West Mountain Road floods regularly between the High School football field and Main Street.         Solution: The Township will replace the culvert at West Mountain Road and elevate the roadway to allow for larger storm events.	Existing	Severe Weather	2	Engineer	HMGP, BRIC, municipal budget	Allevia te floodin g of propert ies and roadwa y in the area, includi ng Sparta High School	\$600, 000	Wi thi 5 ye ars	Hig h	SIP	SP
2021- Sparta- 009	Disaster Debris Management Plan	Problem: The Township lacks a Disaster Debris Management Plan. Solution: The Township will develop and adopt a Disaster Debris Management Plan.	Existing	All Hazards	3, 6	DPW, OEM	Township budget	Increas ed disaste r respon se plannin g	Staff time	l ye ar	Hig h	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

<u>Cost:</u>

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.





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- Sparta-001	Flood Damage Prevention/ Mitigation	1	1	1	1	1	1	0	1	1	1	0	0	1	1	11	High
2021- Sparta-002	Groundwater Quality Protection	1	0	0	1	1	1	0	1	1	1	0	0	1	1	9	High
2021- Sparta-003	Backup Power for Sparta Ambulance Service	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Sparta-004	Harden DPW Building	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Sparta-005	Harden Germany Flats Pump Facility	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Sparta-006	Streambank Stabilization	0	1	1	1	1	0	0	1	1	1	1	0	1	1	10	High
2021- Sparta-007	Firewise	1	1	1	1	1	1	1	1	1	1	0	0	1	1	12	High
2021- Sparta-008	Culvert at West Mountain Road	1	1	0	1	1	1	0	1	0	0	1	0	1	1	9	High
2021- Sparta-009	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High

Table 9.19-16. Summary of Evaluation and Action Priorities

Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Notes: 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.

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Hazard	Prevention	Property Protection	Public Education and Awareness	Natural Resource Protection	Emergency Services	Structural Projects	Climate Resilient	Community Capacity Building
Dam Failure					Х			
Disease Outbreak					Х			
Drought					Х			
Earthquake					Х			
Flood	Х	Х		Х	Х	Х	1	
Geologic					Х			
Hazardous Materials		х		Х	х			
Hurricane and Tropical Storm		Х		Х	Х			
Invasive Species					Х			
Nor'Easter		Х		Х	Х			
Severe Weather		х		Х	х			
Severe Winter Weather		х			Х			
Wildfire	Х		Х		Х			

Table 9.19-17. Analysis of Mitigation Actions by Hazard and Category

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



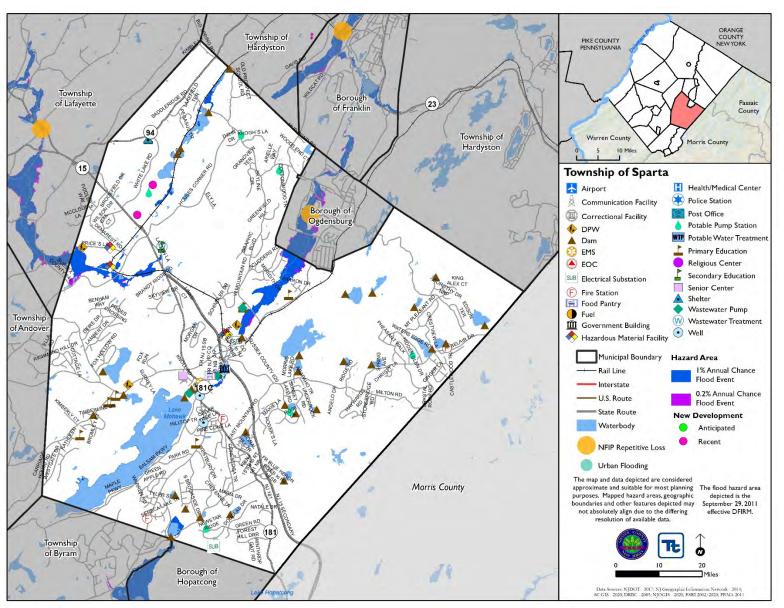


Figure 9.19-1. Township of Sparta Hazard Area Extent and Location Map 1



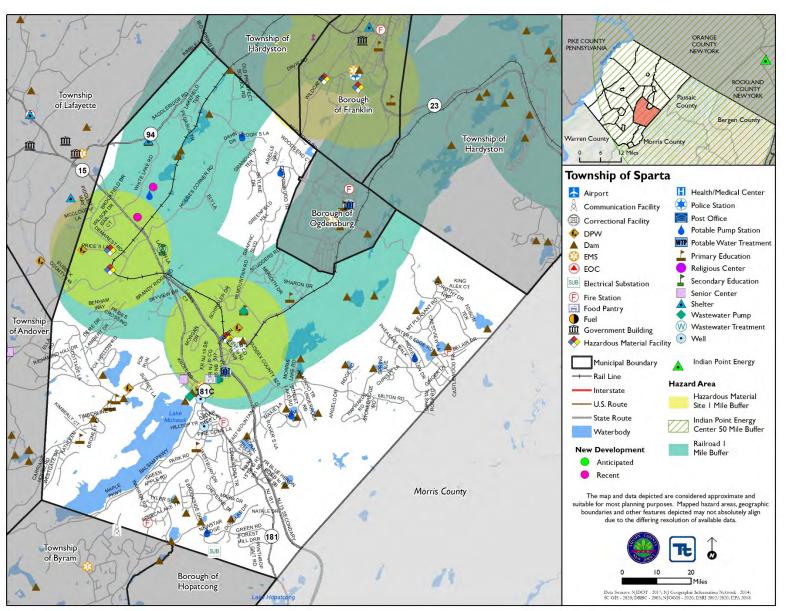


Figure 9.19-2. Township of Sparta Hazard Area Extent and Location Map 2



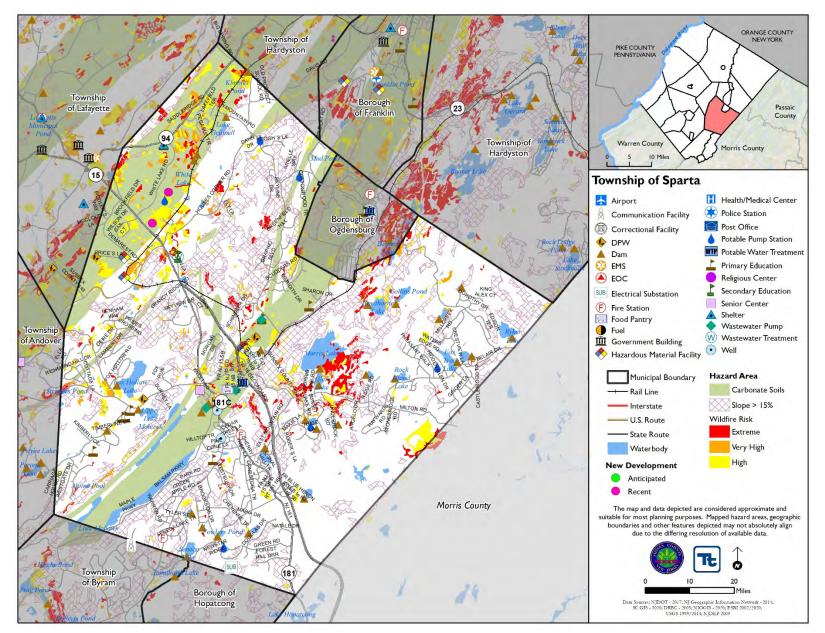


Figure 9.19-3 Township of Sparta Hazard Area Extent and Location Map 3



	A	ction V	Vorks	sheet						
Project Name:	Flood Damage Prever									
Project Number:	2021-Sparta-001									
Risk / Vulnerability										
Hazard(s) of Concern:	Flood									
Description of the Problem:	adjacent to developed Library. Infrastructure continuity of operation	lots, inc in the T	cluding	g Township facilities	s such as	bughout the Township that are s Town Hall and the Township nst flooding events to protect				
Action or Project Intended		or Implementation								
Description of the Solution:										
Is this project related to a	Critical Facility?	Yes		No 🖂						
Level of Protection:	500-year flood lev	vel		nated Benefits ses avoided):		Protects infrastructure from flood damages				
Useful Life:	TBD by feasibilit assessment	-	Goal	s Met:		2, 6				
Estimated Cost:	TBD by feasibility assessment Mitigation Action Type:					Structure and Infrastructure Projects (SIP)				
Plan for Implementation										
Prioritization:	High			red Timeframe fo lementation:	r	Within 5 years				
Estimated Time Required for Project Implementation:	1 year			ential Funding Sou	irces:	FEMA HMGP and PDM, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Township Budget				
Responsible	Engineer, OEM			l Planning Mecha	nisms	Hazard Mitigation,				
Organization:				e Used in Isomentation if any		Emergency Management				
Three Alternatives Conside	ered (including No Ac	tion)_	mp	lementation if any						
	Action	, in the second s	E	stimated Cost		Evaluation				
	No Action			\$0		Problem continues.				
Alternatives:	Rebuild all infrastruct higher standards			High		Costly, not necessary				
	Set standards for new/replacement infrastructure			Low	inf	Does not protect current frastructure and replacement process will be slow				
Progress Report (for plan	maintenance)									
Date of Status Report:										
Report of Progress:										
Update Evaluation of the Problem and/or Solution:										





	Act	ion Worksheet
Project Name:	Flood Damage Prevention/	Mitigation
Project Number:	2021-Sparta-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of infrastructure
Property Protection	1	Project will protect critical infrastructure from flood damage.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Township has the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	Within 5 years
Agency Champion	1	Engineer, OEM
Other Community Objectives	1	Protection of critical infrastructure
Total	11	
Priority (High/Med/Low)	High	



		Action V	Vork	sheet						
Project Name:	Groundwater Quali									
Project Number:	2021-Sparta-002									
Risk / Vulnerability	-									
	Hazardous Material	s								
Hazard(s) of Concern:										
Description of the Problem:	Groundwater in the contamination.	roundwater in the Germany Flats area of Township requires protection from potential ntamination.								
Action or Project Intended										
Description of the Solution:	to protect groundwa	Engineering/utilities will research potential equipment/technologies that could be put in place to protect groundwater. If viable, the Township will work to use these equipment/technologies in the Township's water supply system.								
Is this project related to a	Critical Facility?	Yes		No 🖂						
Level of Protection:	TBD by engineerir	ng study		mated Benefits ses avoided):	Protection of groundwater from contamination					
Useful Life:	20 years		Goa	ls Met:	1, 2, 6 Structure and Infrastructure					
Estimated Cost:	High	High Mitigation Action Type:								
Plan for Implementation										
Prioritization:	High			ired Timeframe for lementation:	Within 5 years					
Estimated Time Required for Project Implementation:	Within 5 years			ential Funding Sources:	BRIC, HMGP, Township budget					
Responsible Organization:	Engineering, Utiliti	es	to b	al Planning Mechanisms e Used in lementation if any:	Capital improvements planning					
Three Alternatives Conside	ered (including No	Action)								
	Action			Estimated Cost	Evaluation					
	No Action Ban hazardous mat			\$0 N (A	Problem continues.					
	Ban nazardous mat Township	erials in		N/A	Not possible					
Alternatives:	Develop contrac neighboring tow water access in ev contaminatio	ns for /ent of		N/A	Neighboring town capacity would be unable to meet needs					
Progress Report (for plan i	naintenance)									
Date of Status Report:										
Report of Progress:										
Update Evaluation of the Problem and/or Solution:										





	Act	ion Worksheet
Project Name:	Groundwater Quality Prote	ection
Project Number:	2021-Sparta-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protects water supply
Property Protection	0	
Cost-Effectiveness	0	
Technical	1	
Political	1	
Legal	1	The Township has the legal authority to complete the project
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	Hazardous Materials
Timeline	0	Within 5 years
Agency Champion	1	Engineering, Utilities
Other Community Objectives	1	
Total	9	
Priority (High/Med/Low)	High	



	Action	Worksheet								
Project Name:	Backup Power for Sparta An	ubulance Service								
Project Number:	2021-Sparta-003									
Risk / Vulnerability										
Hazard(s) of Concern:	Hurricane, Nor'Easter, Sever	e Weather, Severe Winter V	Veather							
Description of the Problem:	power.			s for critical facilities. The a Sparta Avenue lacks backup						
Action or Project Intended										
<b>Description of the</b> <b>Solution:</b> The Engineer will research what size generator is needed to power the Sparta Ambulance Service building. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Sparta Ambulance Service building.										
Is this project related to a	Critical Facility? Yes	No 🗌		-						
Level of Protection:	N/A	Estimated Benefits (losses avoided):		Ensures continuity of operations of Sparta Ambulance Service building						
Useful Life:	20 years	Goals Met:		1, 3 Structure and Infrastructure						
Estimated Cost:	\$50,000	\$50,000 Mitigation Action Type:								
Plan for Implementation										
Prioritization:	High	Desired Timeframe for Implementation:	r	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, Municipal Budget						
Responsible Organization:	Engineer, OEM	Local Planning Mechar to be Used in Implementation if any		Hazard Mitigation, Emergency Management						
Three Alternatives Conside	ered (including No Action)		-							
	Action	Estimated Cost		Evaluation						
	No Action	\$0		Problem continues.						
Alternatives:	Install solar panels	\$100,000	amo e	eather dependent; need large ount of space for installation; xpensive if repairs needed						
	Install wind turbine	\$100,000		ther dependent; poses a threat 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:	Backup Power for Sparta Ambulance Service					
Project Number:	2021-Sparta-003					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1	Project will protect critical services of Sparta Ambulance Service building				
Property Protection	1	Project will protect building from power loss.				
Cost-Effectiveness	1					
Technical	1					
Political	1					
Legal	1	The Township has the legal authority to complete the project.				
Fiscal	0	Project requires funding support.				
Environmental	1					
Social	1					
Administrative	1					
Multi-Hazard	1	Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather				
Timeline	0	Within 5 years				
Agency Champion	1	Engineer, OEM				
Other Community Objectives	1					
Total	12					
Priority (High/Med/Low)	High					





	Α	ction W	orkshee	t			
Project Name:	Harden DPW Buildin	Harden DPW Building					
Project Number:	2021-Sparta-004						
Risk / Vulnerability							
Hazard(s) of Concern:	Hurricane, Severe W	Hurricane, Severe Weather					
Description of the Problem:	The Township would like to use the DPW building located on Prices Lane as a safe room for tornadoes and hurricanes. The Township has already installed a backup generator to support the site.						
Action or Project Intended for Implementation							
Description of the Solution:	The Township will work to harden the DPW building using FEMA 361 standards.						
Is this project related to a ( Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌			
Level of Protection:	FEMA 361 standards			ted Benefits avoided):	Safe Room established		
Useful Life:	25 years		Goals Met:		1, 2, 6		
Estimated Cost:	High		Mitigation Action Type:		Structure and Infrastructure Project		
	Plan	for Imp	lementa				
Prioritization:	High		Desired Timeframe for Implementation:		3 years		
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		HMGP, BRIC, USDA Community Facilities Grant Program, Township budget		
Responsible Organization:	OEM, Public Works, Engineer		Local Planning Mechanisms to be Used in Implementation if any:		Hazard mitigation, Emergency management		
	Three Alternatives	Consid	ered (ind	cluding No Action)			
	Action		Estimated Cost		Evaluation		
A14	No Action			\$0	Current problem continues		
Alternatives:	Build new DPW Facility Build standalone Safe		High		Costly, unnecessary		
	Room		High		Costly, unnecessary		
Progress Report (for plan maintenance)							
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





Action Worksheet					
Project Name:	Harden DPW Building				
Project Number:	2021-Sparta-004				
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate			
Life Safety	1	Creates safe room			
Property Protection	1	Protects DPW from wind damages			
Cost-Effectiveness	1				
Technical	1	The project is technically feasible			
Political	1				
Legal	1	The Township has the legal authority to complete the project			
Fiscal	0	The project requires funding support			
Environmental	1				
Social	1				
Administrative	1				
Multi-Hazard	1	Hurricane, Severe Weather			
Timeline	0	5 years			
Agency Champion	1	OEM, Public Works, Engineer			
Other Community Objectives	1				
Total	12				
Priority (High/Med/Low)	High				



	A	ction W	orkshee	t				
Project Name:	Harden Germany Fla	its Pump	Facility					
Project Number:	2021-Sparta-005							
Risk / Vulnerability								
Hazard(s) of Concern:	Hurricane, Nor'Easte	er, Severe	e Weathe	r, Severe Winter Wea	ther			
Description of the Problem:	Windows of the Germany Flats pump facility are not impact resistant and pose a threat in the event of a high wind event.							
Action or Project Intended for Implementation								
Description of the Solution:The Township will retrofit impact resistant windows and shutters on Germany Flats Pump Facility located on Park Lake Drive.								
Is this project related to a ( Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌				
Level of Protection:	500-year wind event	Estimated Benefits (losses avoided):			Reduction in risk of roof failure and protection of critical services			
Useful Life:	25 years		Goals M	let:	2, 6			
Estimated Cost:	High		Mitigation Action Type:		Structure and Infrastructure Project			
	Plan	for Imp	lementa					
Prioritization:	High		Desired Timeframe for Implementation:		3 years			
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		HMGP, BRIC, USDA Community Facilities Grant Program, Township budget			
Responsible Organization:	OEM, Public Works		Local Planning Mechanisms to be Used in Implementation if any:		Hazard mitigation, Emergency management			
	Three Alternatives	s Consid						
	Action		Estimated Cost		Evaluation			
Alternatives:	No Action Build new Pump Facility		\$0 High		Current problem continues Costly, unnecessary			
Alter natives:	Build small pump station				Costly, facility unlikely to			
	in case of failure		High		be used			
Progress Report (for plan maintenance)								
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								





Action Worksheet								
Project Name:	Harden Germany Flats Pu	Harden Germany Flats Pump Facility						
Project Number:	2021-Sparta-005							
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate						
Life Safety	1	Protects critical services of Pump Facility						
Property Protection	1	Protects Pump Facility from wind damages						
Cost-Effectiveness	1							
Technical	1	The project is technically feasible						
Political	1							
Legal	1	The Township has the legal authority to complete the project						
Fiscal	0	The project requires funding support						
Environmental	1							
Social	1							
Administrative	1							
Multi-Hazard	1	Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather						
Timeline	0	5 years						
Agency Champion	1	OEM, Public Works						
Other Community Objectives	1							
Total	12							
Priority (High/Med/Low)	High							



		Action V	Norks	heet			
Project Name:	Streambank Stabiliz	Streambank Stabilization					
Project Number:	2020-Borough of Su	2020-Borough of Sussex-006					
Risk / Vulnerability							
Hazard(s) of Concern:	Flood, Landslide						
Description of the Problem:				orone to erosion of streambar (located along the Wallkill R			
Action or Project Intended							
Description of the Solution:	section of Glen Broo techniques are estab	The Township will determine the proper stream stabilization techniques for a 3,500 feet section of Glen Brook and a 1,500 section of the Walkill River at Station Park. Once the techniques are established, the Township will implement stream stabilization and continue to monitor the locations to measure success and needs for additional measures.					
Is this project related to a	<b>Critical Facility?</b>	Yes		No 🖂			
Level of Protection:	N/A			mated Benefits ses avoided):	Protect from home damage, road damage, JCP&L substation damage		
Useful Life:	1 year		Goal	ls Met:	1		
Estimated Cost:	Medium for Glen \$1M for Wallkill	/	Miti	gation Action Type:	Natural Systems Protection		
Plan for Implementation							
Prioritization:	High			red Timeframe for lementation:	Within 5 years		
Estimated Time Required for Project Implementation:	1 year			ential Funding Sources:	HMGP, BRIC, Township budget		
Responsible Organization:	Administration		Mec	ll Planning hanisms to be Used in lementation if any:	Hazard mitigation		
Three Alternatives Conside		Action)					
	Action			Estimated Cost	Evaluation		
	No Action			\$0	Problem continues.		
Alternatives:	Retreat from area Glen Brook and W River	allkill		High	Costly, unpopular		
	Levees along Glen and Wallkill Ri			High	Not feasible/environmentally damaging, costly		
Progress Report (for plan	naintenance)						
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





Action Worksheet							
Project Name:	Streambank Stabilization						
Project Number:	2021-Sparta-006						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	0						
Property Protection	1	Project will protect from home damage, road damage, JCP&L substation from potential flood damage					
Cost-Effectiveness	1						
Technical	1						
Political	1						
Legal	0	Permitting likely required					
Fiscal	0	Project requires funding support					
Environmental	1						
Social	1						
Administrative	1						
Multi-Hazard	1	Flood, Hurricane, Nor'Easter, Severe Weather					
Timeline	0						
Agency Champion	1	Administration					
Other Community Objectives	1	Restore natural floodplain function					
Total	10						
Priority (High/Med/Low)	High						





	A	ction W	orkshee	t				
Project Name:	Culvert at West Mou	Culvert at West Mountain Road						
Project Number:	2021-Sparta-008							
	Risk / Vulnerability							
Hazard(s) of Concern:	Flood, Severe Weath	er						
Description of the Problem:	West Mountain Road Street.	d floods 1	regularly	between the High Sch	nool football field and Main			
	Action or Proje	ct Inten	ded for I	mplementation				
Description of the Solution:								
Is this project related to a C Lifeline?	Critical Facility or	Yes		No 🖂				
Level of Protection:	TBD by size selected			ted Benefits avoided):	Reduction in flood risk			
Useful Life:	30 years		Goals N	let:	2			
Estimated Cost:	\$600,000		Mitigat	ion Action Type:	Structure and Infrastructure Projects			
	Plan	for Imp	lementa		· · · · · · · · · · · · · · · · · · ·			
Prioritization:	High			d Timeframe for nentation:	Within 5 years			
Estimated Time Required for Project Implementation:	6 months		Potenti Source	ial Funding s:	HMGP, BRIC, municipal budget			
Responsible Organization:	Engineering		Mecha	lanning nisms to be Used ementation if any:	Hazard mitigation planning			
	Three Alternatives	s Consid	ered (in	cluding No Action)				
	Action		E	stimated Cost	Evaluation			
	No Action			\$0	Current problem continues			
Alternatives:	Elevate roadway b	ut no		¢500.000	Culvert failure will eventually cause flooding			
	culvert replacem	ient		\$500,000	problems			
	Relocate roadw	ay		N/A	Not possible			
	Progress Re	port (fo	r plan m	aintenance)				
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								





Action Worksheet								
Project Name:	Replace Culvert at West M	Replace Culvert at West Mountain Road						
Project Number:	2021-Sparta-008							
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate						
Life Safety	1	Protects life from flooding.						
Property Protection	1	Protects culvert 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	0	Project would reduce flooding impacts						
Administrative	0							
Multi-Hazard	1	Flood, Severe Weather						
Timeline	0	Within 5 years						
Agency Champion	1	DPW						
Other Community Objectives	1							
Total	9							
Priority (High/Med/Low)	High							



# 9.20 BOROUGH OF STANHOPE

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

# 9.20.1 Hazard Mitigation Planning Team

The Borough of Stanhope 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).

Primary Point of Contact		Alternate Point of Contact			
Name / Title: Brian McNeilly		Name / Title: Eric Keller, Borough Engineer			
Address: 77 Main Street, Star	• ·	Address: 77 Main Street, Stanhope, NJ 07874			
Phone Number: (973) 347-01		Phone Number: (973) 291-2919			
Email: bmcneilly@stanhopen	ij.gov	Email: ekeller@bowmanconsulting.com			
NFIP Floodplain Administ	rator				
Name / Title: Thomas Persho	use, Construction Official				
Address: 77 Main Street, Star					
Phone Number: (973) 347-01					
Email: tminniti@stanhopenj.					
Name	Title	Method of Participation			
Brian McNeilly	Administrator	Primary point of contact, lead information gathering, attended the annex training; reviewed annex*			
Wayne Anthony	OEM Coordinator	Provided background on previous submissions and current OEM related info; reviewed annex*			
Eric Keller	Borough Engineer	Alternate point of contact, information resource; reviewed annex*			
Thomas Pershouse	Construction Official	NFIP floodplain administrator; reviewed annex*			
Dany Mooney	CFO	Reviewed annex*			
William Hamilton	Planner	Reviewed annex*			
Jason Titsworth	DPW Supervisor	Reviewed annex*			
Steve Pittigher	Police Chief	Reviewed annex*			
Mike Donahue	Fire Chief	Reviewed annex*			

#### Table 9.20-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





# 9.20.2 Jurisdiction Profile

The Borough of Stanhope is located at the southern tip of Sussex County. It has a total area of 2.2 square miles and is bordered to the north and west by Byram Townships, to the north and east by Hopatcong Borough and to the south by Morris County. Lake Musconetcong is a large lake located in the southeastern portion of the Borough. Tributaries of the Musconetcong River flow through the Borough.

According to the U.S. Census, the 2010 population for the Borough of Stanhope was 3,610. The estimated 2018 population was 3,411, a 5.5 percent increase from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 4.9 percent of the population is 5 years of age or younger and 8.3 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.

# 9.20.3 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 9.19-2 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.

Type of Development	2	015	2	016	2	017	2018		2	2019	
ľ	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	1	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		'ype of lopment		Units / ictures	Location (address and/or Known Hazard block and lot) Zone(s)*		Description / Status of Development				
		Recent Ma	jor Deve	elopment ar	nd Infras	tructure from	m 2015 to	o Present			
				None	identified						
Kno	own or A	nticipated	Major D	evelopmen	t and Inf	rastructure	in the Ne	ext Five (5)	Years		
				None a	anticipate	d					

## Table 9.20-2. Recent and Expected Future Development

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

# 9.20.4 Capability Assessment

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

		Authority that		Have aspects of the HMF been integrated into you codes/ordinances/plans	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
Comment: • State mandated on local level under NJA Adopted 9/3/2019 • This code follows State Uniform Constru		0	ı.).	Edition, 2018, NJ	IAC 5:24-3.14
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: • State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and me • The Land Use Department is responsible	to have current zo aster plan.	oning and other land de	velopment ordin	ances after the pl	
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance r the filing of such plats with the county re condition for the issuance of a permit for or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this s	equire approval of coording officer an r any development exempt from such s the planning boar of this act . Dictato ounty planning boa nd for the approva	subdivision plats by re d approval of site plans , except that subdivision ite plan review and app d whenever the board o ed by the Municipal Lan ard shall provide for th	solution of the p s by resolution o n or individual lo proval; provided f adjustment has nd Use Law. NJ pe review of all s	lanning board as f the planning bo ot applications fo that the resolutic jurisdiction over Statute 40:27-6.2 ubdivisions of lar	a condition for ard as a r detached one on of the board r a subdivision 2 - the board of nd within the

## Table 9.20-3. Planning, Legal and Regulatory Capability





		Authority that		Have aspects of the HMP been integrated into you codes/ordinances/plans		
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
• The Land Use Department is responsible	e for this ordinanc	e in compliance with C	hapter 100 of Bo	orough Code.		
Stormwater Management	Yes	Local	Yes	Yes	-	
Comment: See Title 7 of the NJ Administrative Cod The Land Use Department is responsible		e in compliance with C	hapter 100 of Bo	prough Code.		
Post-Disaster Recovery	No	-	No	-	-	
Comment:						
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-	
Growth Management Comment: • State Mandated on a municipal level. Se	No e Zoning Ordinan	- ce ; Also - Plan Endors	Yes – if municipality has a Planning Board wement Process v	- ia the State Deve	- lopment &	
Redevelopment Plan provides for the de of state environmental regulations make	lineation of Growi	th Areas and Environs;	Use of the endor	sed plans in the l		
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
<ul> <li>Dictated by the Municipal Land Use Law review. NJ Statute 40:27-6.2: The board review of all subdivisions of land within affecting county road or drainage facili planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publi given to the county planning board at le a copy of the official notice of the public.</li> <li>The Land Use Department is responsible</li> </ul>	l of commissioners the county by said ties as set forth and ile of the planning by planning board of notify the county djoining county re ic lands shown on ast 10 days prior to hearing together	of any county having a county planning board d limited hereinafter in and zoning ordinances a copy of the planning a planning board of the in oads or other county lan the county master plan to the public hearing the with a copy of the prop	county planning d and for the app this section. 40 of all municipa. nd zoning ordin. ntroduction of a nds, or lands lyin or official coun ereon by persona osed ordinance.	g board shall pro proval of those su :27-6.10 In order lities in the count ances of the muni ny revision or an ng within 200 feet ty map. Such no il delivery or by c	wide for the wide for the what county r that county r, each cipality in effec- nendment of tof a municipa tice shall be vertified mail of	
Environmental Protection	Yes	State, Federal	No	Yes	-	
Comment:     Chapter 12 Environmental Commission     Chapter 90 Hazardous Materials						
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	-	
<ul> <li>Comment:         <ul> <li>The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016.</li> <li>The Construction Official is responsible Prevention.</li> </ul> </li> </ul>	lood losses. They lity must be review ce. Regulations for	do not require local advect for compliance with r the Flood Control Have	option but as enj these regulation zards Act were a	forced by the NJL as. In addition, pa dopted in 2007 a	DEP, the articipation in nd amended	

\_\_\_\_\_



		Authority that		been integra	s of the HMP ted into your ances/plans?		
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.		
due to flood conditions in specific areas	(Yes/No)         Local)         Mandated?         comments.         applica           It is the purpose of this article to promote the public health, safety, and general welfare and to minimize public and private lodue to flood conditions in specific areas by provisions designed to:         A. Protect human life and health;         B. Minimize expenditure of public money for costly flood-control projects;         C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense the general public;         D. Minimize prolonged business interruptions;         E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer list streets, bridges located in areas of special flood hazard;           F. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard;         G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and           M. H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.         In order to accomplish its purposes, this article includes methods and provisions for:           A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion haz or which result in damaging increases in erosion or in flood heights or velocities;           B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;         C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;						
• The ordinance lacks discussion of the st		board requirement and					
Wellhead Protection	No	-	No	-	-		
Comment:							
Emergency Management Comment: Chapter 15 Fire Department Chapter 37 Police Department	Yes	Local	No	No	-		
Climate Change	No	-	No	-	-		
Comment:							
Disaster Recovery Ordinance	No	-	No	-	-		
Comment:							
Disaster Reconstruction Ordinance	No	-	No	-	-		
Comment:							
Other: Municipal Separate Storm Sewer System (MS4) Comment:	Yes	State	Yes	Yes	-		
• The Land Use Department is responsible	e for this ordinance	e in compliance with Cl	hapter 1 <u>00 of</u> Bo	rough Code.			
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	No	Yes	-		
<i>Comment:</i> • The Zoning Department is responsible for	or these ordinances	s in compliance with Cl	hapter 100 of Bo	rough Code.			
Planning Documents							
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-		
Comprehensive / Master Plan         Yes         Local         Yes         Yes         -           Comment:         •         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							





		Authority that	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	<b>Do you have</b> <b>this?</b> (Yes/No)	enforces (Federal, State, Regional, County, Local)		If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
<ul> <li>important to the development of the cound municipalities within the county in any municipalities within the county in any municipalities within the county in any municipal divise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be complexed.</li> <li>The Land Use Department is responsible.</li> </ul>	natters whatsoeven rs with respect to Land Use Law (M and requires that consistent with the	r which may concern the the formulation of devel (LUL) L. 1975, s. 2, eff each municipality prepu Master Plan or will no	e integrity of the lopment program Aug 1, 1976 40:. are a master pla t be benefitted fr	county master p ns and budgets f 55D-28 provides n and update it e om a presumptio	lan and to or capital the required very 6 years. n of validity.	
Capital Improvement Plan	Yes	Local	No	No	-	
Comment:		I				
Disaster Debris Management Plan	No	-	No	-	2021- Stanhope-00	
Comment:						
Floodplain or Watershed Plan	No	-	No	-	-	
Comment:						
Stormwater Management Plan	Yes	State	Yes	Yes	-	
of major development to be located with without prior authorization from the Dep • The Boro Engineer is responsible for thi	partment under the s plan, which is a	e Flood Hazard Area C part of the Master Plan	ontrol Act Rules	, N.J.A.C. 7:13.	rian zone	
Stormwater Pollution Prevention Plan Comment:	Yes	State, County	Yes	No	-	
<ul> <li>The Phase II New Jersey Pollutant Disc. 7:14.4) were published in the February 2 associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will management plan and implementing or basin cleaning); implementing solids an education component.</li> </ul>	2, 2004, NJ Registo off. The NJPDES 1 ther Act. These NJI sewer systems, kno such as universiti am establishes the ese sources. The St dlife feeding, prop linance(s); requiri d floatables contro	er. These NJPDES rules rules establish a regulat PDES rules govern the own as MS4s. Under th es and hospitals, and Su Statewide Basic Requiren tatewide Basic Requiren er waste disposal, etc.) ng certain maintenance ol; locating discharge p	s are intended to tory program for issuance of perm is program, pern tate, interstate a rements that mu nents include ma ; the developmen activities (such oints and stencil	address and red existing stormw hits to entities than nits must be secund federal agences the implemented easures such as: nt of a municipal as street sweepin ling catch basins,	uce pollutants ater discharges t own or red by ies that operate d to reduce the adoption of stormwater og and catch and a public	
Urban Water Management Plan	No	-	No	-	-	
Comment:				[		
Habitat Conservation Plan	No	-	No	-	-	
Comment:	Ъ.Y		NT.			
Economic Development Plan	No	-	No	-	-	
<i>Comment:</i> Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-	
Comment: • NJ Coastal Area Facility Review Act (N- including construction, relocation, and e structures, and site preparation. This la	enlargement of bui	ildings or structures, an	d excavation, gr	ading, shore pro	tection	



		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	<b>Do you have</b> <b>this?</b> (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated? No	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Community Wildfire Protection Plan	No	-	No	-	-	
Comment:						
Community Forest Management Plan	Yes	Local, County, State	No	No	-	
Comment:						
Transportation Plan	Yes	State, County & Local	No	No	-	
Comment:		Local		I I		
Agriculture Plan	No	-	No	-	-	
Comment:				·I		
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: • The Land Use Department is responsible	a for this plan wh	ich was adopted in Apri	1 of 2000			
Response/Recovery Planning	e jor inis piun, whi	ien was adopted in Apri	10/2009.			
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-	
Comment: • Each county and municipality in the State necessary to implement the plan. Each H Emergency Planning Guidelines have be subsequent scheduled review of the State • The OEM is responsible for this plan. Threat & Hazard Identification & Risk	Emergency Operation the seen adopted by the comparison of the second seco	ions Plan shall be adop State Office of Emerge	ted no later than ncy Managemen	one year after th	e State	
Assessment (THIRA)	NO	-	NO	-	-	
Comment:	) Y		) Y			
Post-Disaster Recovery Plan	No	-	No	-	-	
Comment:						
Continuity of Operations Plan	No	-	No	-	-	
Comment:	X7	C	) Y	, v		
Public Health Plan	Yes	County	No	Yes	-	
Comment:	), T		),			
Other	No	-	No	-	-	
Comment:						

# Table 9.20-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits?	Yes, Building Department
- If no, who does? If yes, which department?	res, Building Department





Criterion	Response
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

#### ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Staff/Personnel Resource	Available?	Department/Agency/Position		
Administrative Capability				
Planning Board	Yes	Land Use Board		
Mitigation Planning Committee	anning Committee No			
Environmental Board / Commission	Yes	Mayor and Council		
Open Space Board / Committee	No	-		
Economic Development Commission / Committee	No	-		
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Nixle Text Messaging System		
Maintenance program to reduce risk	Yes	Risk Management Consultant		
Mutual aid agreements	Yes	Fire Department		
Technical/Staffing Capability				
Planners or engineers with knowledge of land development and land management practices	Yes	Borough Engineer / Planner		
Engineers or professionals trained in building or infrastructure construction practices	Yes	Borough Engineer / Construction Official		
Planners or engineers with an understanding of natural hazards	Yes	Borough Engineer		
Staff with training in benefit/cost analysis	No	Chief Financial Officer		
Staff with training in green infrastructure	Yes	Borough Engineer / Planner		
Staff with education/knowledge/training in low impact development	Yes	Borough Engineer / Planner		
Surveyor	Yes	Borough Engineer's Office		
Stormwater engineer	Yes	Borough Engineer		
Personnel skilled or trained in GIS applications	Yes	Borough Engineer / Planner		
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	Yes	Millennium Strategies		
Resilience Officer	No	-		
Other: NFIP Floodplain Administrator	Yes	Construction Official		

#### FISCAL CAPABILITY

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





Financial Resource	Accessible or Eligible to Use?		
Community Development Block Grants (CDBG, CDBG-DR)	Yes		
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	Yes		
Incur Debt through Private Activity Bonds	Yes		
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	-		

#### Table 9.20-6. Fiscal Capabilities

## EDUCATION AND OUTREACH CAPABILITY

The table below summarizes the education and outreach resources available to the Borough of Stanhope.

## Table 9.20-7. 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.	No
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, Borough website and social media

#### **COMMUNITY CLASSIFICATIONS**

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

#### Table 9.20-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule No		-	-
Public Protection (Fire ISO Protection Class)	Yes	Unknown	Unknown
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	Yes	Not certified	Joined program on September 14, 2010





#### ADAPTIVE CAPACITY

Adaptive capacity is defined as "the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences" (IPCC 2014). In other words, it describes a jurisdiction's current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction's rating.

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

#### Table 9.20-9. Adaptive Capacity

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 does not have access to resources to determine the possible impacts of climate change upon the municipality. However, 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 9.20-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Borough Engineer / DPW
Who is your floodplain administrator? (name, department/position)	Thomas Pershouse, Construction Official
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	2006
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
When was the most recent Community Assistance Visit or Community Assistance Contact?	Unknown





Criterion	Response	
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?	No, but the FPA would attend training if needed.	
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	
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	3 policies	
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	2 claims \$16,257	
Do you maintain a list of properties that have been damaged by flooding?	No	
Do you maintain a list of property owners interested in flood mitigation?	No	

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

#### **OPPORTUNITIES FOR FUTURE INTEGRATION**

Storm and

Snowstorm

- Disaster Debris Management Plan: The Borough will develop a Disaster Debris Management Plan. (2021-Stanhope-003)
- Flood Damage Prevention Ordinance: The Borough will update the flood damage prevention ordinance to include freeboard (2021-Stanhope-004).

# 9.20.5 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 Stanhope'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 9.19-11 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.

Date(s) of	Event Type (disaster declaration if	Sussex County		Summary of Local
Event	applicable)	Designated?	Summary of Event	Damages and Losses
January 22, 2016 - January	DR-4264: Severe Winter	Yes	A major nor'easter, produced record snowfall and blizzard	While the County was impacted, the Borough did not

#### Table 9.20-11. Hazard Event History

conditions in parts of New Jersey

on January 23rd and 24th.



24, 2016

experience damages or losses.



Date(s) of Event	Event Type (disaster declaration if applicable)	Sussex County Designated?	Summary of Event	Summary of Local Damages and Losses
January 20, 2020 and continuing	EM-3451, DR- 4488: COVID- 19 Pandemic	Yes	The coronavirus pandemic resulted in the need for shutdowns and social distancing and mask requirements.	No Damages. Loss revenues and costs associated with PPE

Source: FEMA 2020, NOAA NCEI 2020

# 9.20.6 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 Stanhope 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 Stanhope 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 Stanhope has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

The following summarizes the repetitive and severe repetitive flood losses in the Borough of Stanhope.

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

Source: FEMA 2019

#### **CRITICAL FACILITIES AND LIFELINES**

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

#### Table 9.20-12. Critical Facilities and Lifelines Flood Exposure

		Expo	sure
Name	Туре	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:

- There is no standby power at Lenape Valley Regional High School at 28 Sparta Road.
- There is no standby power at Stanhope Public School at 24 Valley Road.
- The Borough lacks a Disaster Debris Management Plan.





• The flood damage prevention ordinance lacks 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 Borough of Stanhope 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 Stanhope. The Borough of Stanhope 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 Stanhope agreed with the calculated hazard rankings.





Dam Failure	Disease Outbreak	Drought	Earthquake	Flood	Geologic
Medium	Medium	Medium	Low	Medium	Medium

Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter	Severe Weather	Severe Winter Weather	Wildfire
High	High	High	High	High	High	Medium

## 9.20.7 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 9.19-15 and Table 9.19-16 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.

			Status (In Progress, No		the 2021 HMP odate?
2010	5 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Stanhope- 1 (revised old #1)	Ensure continuity of operations at critical facilities and municipal buildings. The following is identified at this time: Purchase and install a backup generators for Lenape Valley Regional High School and Valley Road School	Emergency Management	No Progress	X	2021- Stanhope-001, 2021- Stanhope-002
Stanhope- 2 (old #4)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	Borough Administration	Ongoing Capability		
Stanhope- 3 (new)	Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan; consider including hazard identification, hazard zones risk assessment information, and hazard mitigation goals as identified in the HMP. Further, the findings and recommendation of the HMP will be considered during any future site plan review processes.	Planning	Ongoing Capability		

## Table 9.20-14. Status of Previous HMP Mitigation Actions







			Status (In Progress, No		the 2021 HMP date?
2016 Action Number Action Description		Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Stanhope- 4 (new)	Develop specific design guidelines and development review procedures for new construction, replacement, relocation and substantial improvement in hazard areas within the Borough.	Borough Administration	Ongoing Capability		
Stanhope- 5 (new)	When updating the Zoning Ordinance, the Borough will recognize hazard areas as limits on changes to zoning within the municipality.	Borough Administration	Ongoing Capability		
Stanhope- 6 (new)	Ensure hazard mitigation initiatives are incorporated into the capital improvement plan; budget for some of these projects.	Borough Administration	Ongoing Capability		
Stanhope- 7 (new)	Incorporate risk assessment and hazard mitigation initiatives into planning efforts.	Borough Administration	Ongoing Capability		

In addition to the above progress, the Borough of Stanhope 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 Stanhope 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 Stanhope 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 9.19-15 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Stanhope 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 9.19-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.20-15	Proposed	Hazard	<b>Mitigation</b>	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
		<b>Problem</b> : Backup power sources are necessary to maintain critical services for critical facilities. There is no standby power at Lenape Valley Regional High School at 28 Sparta Road.		Hurricane,			FEMA HMGP and BRIC, USDA Communit y Facilities	Ensure					
2021- Stanhope- 001	Generator for Lenape Valley Regional High School Solution: The Borough will work with Lenape Valley High School to purchas and install a 75-85 kW generator and necessary electrical components to supply backup power to the School.		Existing	Nor'Easter , Severe Weather, Severe Winter Weather	1, 6	Emergency Manageme nt, School District	Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Municipal Budget	s continu ity of operati ons of High School	\$75,0 00 - \$100, 000	Wi thi 5 ye ars	Hig h	SIP	ES
		<b>Problem:</b> Backup power sources are necessary to maintain critical services for critical facilities. There is no standby power at Stanhope Public School 24 Valley Road.					FEMA HMGP and BRIC, USDA Communit y Facilities						
2021- Stanhope- 002	Generator for Stanhope School	<b>Solution:</b> The Borough will work with the Stanhope School to purchase and install a 35-40 kW generator and necessary electrical components to supply backup power to the School.	Existing	Hurricane, Nor'Easter , Severe Weather, Severe Winter Weather	or'Easter Severe Veather, 1, 6 evere Vinter	Emergency Manageme nt, School District	Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Municipal Budget	s continu ity of operati ons of School	\$50,0 00	Wi thi 5 ye ars	Hig h	SIP	ES
		<b>Problem</b> : The Borough lacks a Disaster Debris Management Plan.						Increas					
2021- Stanhope- 003	21- Disaster Debris anhope- Management <b>Solution:</b> The Borough will adopt a Disaster Debris Man		N/A	All Hazards	5	OEM, Administrat ion	Borough budget	ed disaste r capabil ities	Staff time	2 ye ars	Hig h	LPR	ES





#### Section 9.20 - Borough of Stanhope

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- Stanhope- 004	Flood Damage Prevention Ordinance	<b>Problem:</b> The Borough's Flood Damage Prevention Ordinance lacks discussion of the state's one-foot freeboard requirement.	New	Flood	2	Floodplain administrat ed and Administrat	Borough budget	Meet state standar ds, flood	Staff time	6 m on	Hig h	LPR	PR
004	Update	<b>Solution:</b> Borough will update the ordinance to include the state's freeboard requirement.				ion		protect ion		ths			

Notes:

#### Acronyms and Abbreviations:

CAV	Community	Assist	ance Visi	t

- CRS Community Rating System DPW Department of Public Works
- DPW
   Department of Public Works

   FEMA
   Federal Emergency Management Agency
- FPA Floodplain Administrator
- HMA Hazard Mitiaation 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.



A

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- Stanhope- 001	Generator for Lenape Valley Regional High School	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Stanhope- 002	Generator for Stanhope School	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Stanhope- 003	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2021- Stanhope- 004	Flood Damage Prevention Ordinance Update	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High

Table 9.20-16. Summary of Evaluation and Action Priorities

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.





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

#### Table 9.20-17. Analysis of Mitigation Actions by Hazard and Category

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard

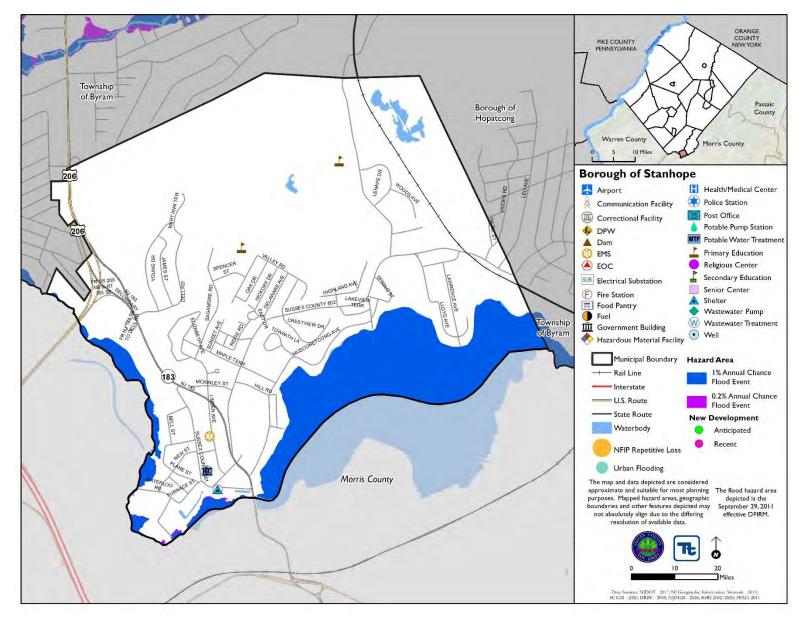


Figure 9.20-1. Borough of Stanhope Hazard Area Extent and Location Map 1



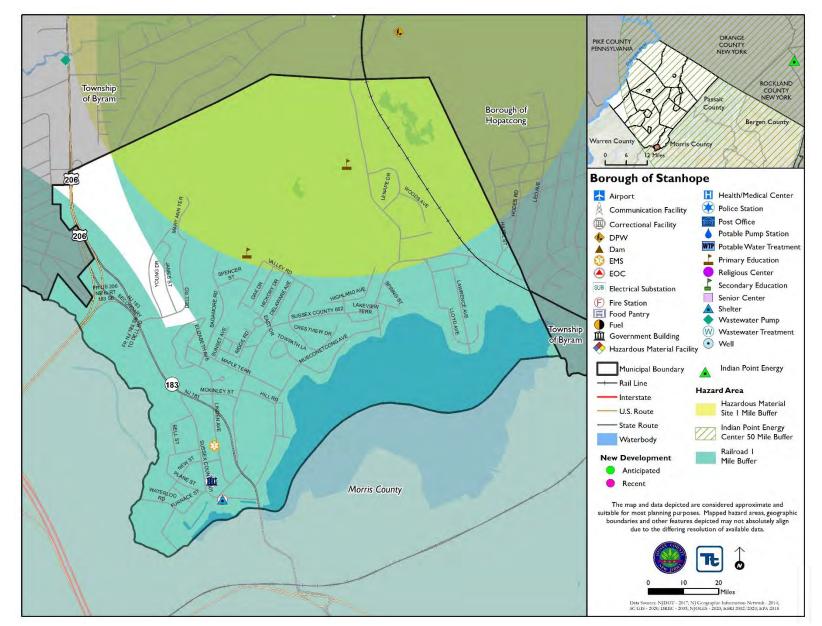


Figure 9.20-2. Borough of Stanhope Hazard Area Extent and Location Map 2



ΤĿ

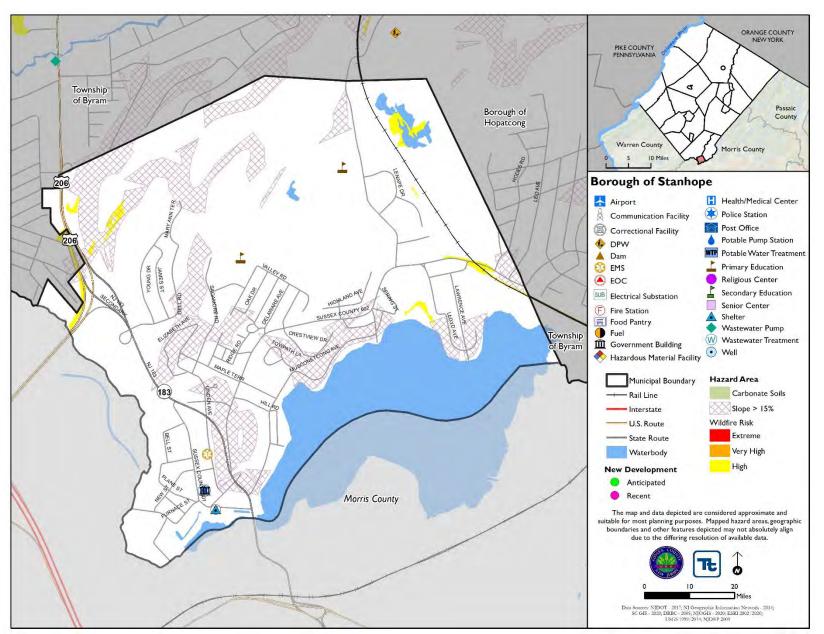


Figure 9.20-3 Borough of Stanhope Hazard Area Extent and Location Map 3



	A	ction V	Vorksheet					
Project Name:	Generator for Lenape	Generator for Lenape Valley Regional High School						
Project Number:	2021-Stanhope-001							
Risk / Vulnerability								
Hazard(s) of Concern:	Severe Weather, Sever	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter						
Description of the Problem:		Backup power sources are necessary to maintain critical services for critical facilities. There is no standby power at Lenape Valley Regional High School at 28 Sparta Road.						
Action or Project Intended								
Description of the Solution:	The Borough will wor generator and necessar	k with l ry electi	Lenape Valley High Schoo rical components to supply	l to purc backup	chase and install a 75-85 kW power to the School.			
Is this project related to a	Critical Facility?	Yes	No 🗌					
Level of Protection:	75-85 kW		Estimated Benefits (losses avoided):		Ensures continuity of operations of High School			
Useful Life:	20 years		Goals Met:		1,6			
Estimated Cost:	\$75,000 - \$100,00	00	Mitigation Action Typ	e:	Structure and Infrastructure Projects (SIP)			
Plan for Implementation								
Prioritization:	High		Desired Timeframe fo Implementation:					
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sou	FEMA HMGP and BR USDA Community Facilities Grant Progra				
Responsible Organization:	Emergency Manageme School District	ent,	Local Planning Mecha to be Used in Implementation if any		Hazard Mitigation, Emergency Management			
Three Alternatives Conside	ered (including No Ac	tion)						
	Action		Estimated Cost		Evaluation			
Alternatives:				amo	Problem continues. eather dependent; need large punt of space for installation; xpensive if repairs needed			
	Install wind turbin	e	\$100,000	Wea	ther dependent; poses a threat 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:	Generator for Lenape Valley Regional High School						
Project Number:	2021-Stanhope-001						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Project will protect critical services of Lenape Valley Regional High School					
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	Emergency Management, School District					
Other Community Objectives	1						
Total	12						
Priority (High/Med/Low)	High						





		Action	Works	sheet				
Project Name:	Generator for Stanho							
Project Number:	2021-Stanhope-002							
Risk / Vulnerability								
Hazard(s) of Concern:	Severe Weather, Sev	ere Wint	er Wea	ather, Hurricane, Nor	'Easter			
	De alexer e anno e anno					- f		
Description of the Problem:		Backup power sources are necessary to maintain critical services for critical facilities. There is no standby power at Stanhope Public School 24 Valley Road.						
Action or Project Intended								
Description of the Solution:	The Borough will we generator and necess	ork with ary elect	the Sta rical co	nhope School to pure omponents to supply	chase ar backup	nd install a 35-40 kW power to the School.		
Is this project related to a	Critical Facility?	Yes	$\boxtimes$	No 🗌				
Level of Protection:	35-40 kW			nated Benefits ses avoided):		Ensures continuity of operations of School		
Useful Life:	20 years			s Met:		1,6		
Estimated Cost:	\$50,000		Miti	gation Action Type	e:	Structure and Infrastructure Projects (SIP)		
Plan for Implementation								
Prioritization:	High			red Timeframe for lementation:	r	Within 5 years		
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources: Female Sources: Facilities G Emergency Performanc (EMPG) Pro			FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget		
Responsible Organization:	Emergency Manager School District	nent,	to be	ll Planning Mechar e Used in lementation if any		Hazard Mitigation, Emergency Management		
Three Alternatives Conside	ered (including No A	ction)		y	-			
	Action		E	stimated Cost		Evaluation		
	No Action			\$0	***	Problem continues.		
Alternatives:	Install solar pane	els			amo	eather dependent; need large ount of space for installation; xpensive if repairs needed		
	Install wind turbine\$100,000Weather dependent; poses a thr to wildlife; expensive repairs							
Progress Report (for plan	maintenance)		L					
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								

\_\_\_\_\_





Action Worksheet							
Project Name:	Generator for Stanhope School						
Project Number:	2021-Stanhope-002						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Project will protect critical services of Stanhope School					
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	Emergency Management, School District					
Other Community Objectives	1						
Total	12						
Priority (High/Med/Low)	High						

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# 9.21 TOWNSHIP OF STILLWATER

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

# 9.21.1 Hazard Mitigation Planning Team

The Township of Stillwater 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).

Primary Point of Contact		Alternate Point of Contact				
Name / Title: Lisa Chammings, Mayor/OEM Address: 964 Stillwater Road, Newton, NJ 07860 Phone Number: (973) 903-3003 Email: lchammings@ptd.net		Name / Title: Robert Wolfe, Deputy OEM Address: 964 Stillwater Road, Newton, NJ 07860 Phone Number: (973) 900-1559				
NFIP Floodplain Administ Name / Title: Joe Golden, Ac Address: 964 Stillwater Road Phone Number: (973) 383-94 Email: zoning@ptd.net	ting Zoning Officer 1 Newton NJ 0786					
Name	Title	Method of Participation				
Lisa Chammings	Mayor/OEM	Primary point of contact; attended the kickoff meeting, annex training, risk assessment meeting and mitigation strategy workshop; provided data and information for the annex update; assisted with public outreach by posting an announcement on the Township website, reviewed annex.*				
Robert Wolfe	Deputy OEM	Alternate point of contact				
Joe Golden	Acting Zoning Officer	NFIP floodplain administrator				
Michael Vreeland	Engineer	Reviewed annex*				
Tammy Leonard	Fiscal/CFO	Reviewed annex*				
Rich Bizik	Building Code Official	Reviewed annex*				
Josh Raff	Public Works Director	Reviewed annex*				
Steven Sugar	Fire Department Chief	Reviewed annex*				

#### Table 9.21-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





# 9.21.2 Jurisdiction Profile

Stillwater Township is located in southwest Sussex County. It covers an area of 27.1 square miles and is bordered to the north by Sandyston Township, to the east by Frankford and Hampton Townships, to the south by Warren County, and to the west by Warren County and Walpack Township. The following unincorporated communities are located within the Township: Five Points, Swartswood, Paulinskill, Middleville, and Stillwater. There are many streams located throughout the Township and include: Blair Creek and its tributaries, Trout Brook and its tributaries, Swartswood Creek and its tributaries, Troy Brook and its tributaries, and Paulins Kill and its tributaries.

According to the U.S. Census, the 2010 population for the Township of Stillwater was 4099. The estimated 2018 population was 3870, a 5.6 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 30.0 percent of the population is 18 years of age or younger and 11.2 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.

# 9.21.3 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 9.20-2 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.

Type of Development	2	015	2	016	2	017	2	018	2	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	3	0	3	0	0	0	0	0	1	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	3	0	1	0	0	0	0	0	1	0
Property or Development Name	Developmentof# of Units /(address and/orKnown HazardStatus of								itus of Ó	
	<b>Recent Major Development and Infrastructure from 2015 to Present</b>									
	None identified									
Kno	Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years									
	None anticipated									

## Table 9.21-2. Recent and Expected Future Development

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

# 9.21.4 Capability Assessment

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

		Authority that		Have aspects of the HMI been integrated into you codes/ordinances/plans			
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.		
Codes, Ordinances, & Requirements							
Building Code	Yes	State & Local	Yes	Yes	-		
<ul> <li>State mandated on local level under NJA Adopted 9/3/2019</li> <li>The Construction Official is responsible et seq.) and Chapter 240 – Land Develo</li> </ul>	for this code in co	0	2				
Zoning Code	Yes	Local	municipality has a Planning Board	Yes	-		
<ul> <li>Comment:         <ul> <li>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.</li> <li>The Zoning Officer is responsible for this code in compliance with Chapter 240, Article 11 – Land Development / Zoning.</li> </ul> </li> </ul>							
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-		
Comment: • P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance r the filing of such plats with the county re	equire approval of	subdivision plats by re	solution of the p	lanning board as	a condition for		

# Table 9.21-3. Planning, Legal and Regulatory Capability





		A web o wites the st		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
<ul> <li>condition for the issuance of a permit for or two dwelling-unit buildings shall be a of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this</li> <li>The Zoning Officer is responsible for the and Site Plan Review and Approval.</li> </ul>	exempt from such s the planning boar of this act . Dictat ounty planning bo and for the approve section.	tite plan review and app d whenever the board of ed by the Municipal La ard shall provide for th al of those subdivisions	proval; providea of adjustment ha. nd Use Law. NJ he review of all s affecting count;	that the resolution s jurisdiction over Statute 40:27-6.2 wbdivisions of law v road or drainag	on of the board r a subdivision 2 - the board of nd within the ge facilities as	
Stormwater Management	Yes	Local	Yes	Yes	-	
Comment: • See Title 7 of the NJ Administrative Coa • This ordinance follows §240-89 – Storm		ıt.				
Post-Disaster Recovery	No	-	No	-	-	
Comment:		-				
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-	
schools, fire and police, as well as any l Growth Management Comment:	No	-	Yes – if municipality has a Planning Board	-	-	
State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make	lineation of Growi	th Areas and Environs;	Use of the endous management st	rsed plans in the l		
Site Plan Review	Yes	County & Local	Yes – if municipality has a Planning Board	Yes	-	
Comment: Dictated by the Municipal Land Use Larreview. NJ Statute 40:27-6.2: The board review of all subdivisions of land within affecting county road or drainage facili planning boards shall have a complete j municipal clerk shall file with the count on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or public given to the county planning board at le a copy of the official notice of the public	l of commissioners the county by said ities as set forth an île of the planning y planning board o l notify the county djoining county re lic lands shown on ast 10 days prior t	of any county having a county planning boar d limited hereinafter in and zoning ordinances copy of the planning a planning board of the it oads or other county lat the county master plan o the public hearing the	a county plannin, d and for the ap, this section. 40 of all municipa and zoning ordin ntroduction of a nds, or lands lyi a or official cour ereon by persona	g board shall pro proval of those su 2:27-6.10 In order lities in the count ances of the muni my revision or an ng within 200 fee aty map. Such no	wide for the ubdivisions r that county y, each icipality in effec nendment of t of a municipa tice shall be	
Environmental Protection	Yes	Local	No	No	-	
Comment: Chapter 253 Littering Chapter 338 Soil Removal Chapter 382 Trees Chapter 400 Water Chapter 467 Water Supply		· · · · · · · · · · · · · · · · · · ·				
Flood Damage Prevention	Yes	Local	Yes	Yes	2021- Stillwater-00	
				1		

\_



		Authority that		been integra	s of the HMP ted into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>The NJ State Law Flood Area Control A federal acts to support minimization of J floodplain ordinances of each municipa the NFIP requires a floodplain ordinan effective June 20, 2016.</li> <li>Chapter 202 – Flood Damage Prevention It is the purpose of this chapter to prom due to flood conditions in specific areas         <ul> <li>A. Protect human life and he</li> <li>B. Minimize expenditure of p</li> <li>C. Minimize the need for ress the general public;</li> <li>D. Minimize damage to publi streets, and bridges located</li> <li>F. Help maintain a stable ta. as to minimize future flood busi</li> <li>G. Ensure that potential buy</li> </ul> </li> </ul>	Nood losses. They lity must be review ce. Regulations for on. ote the public heal by provisions dest alth; public money for co cue and relief effor ness interruptions; ic facilities and uti, in areas of special x base by providing light areas;	do not require local addied for compliance with r the Flood Control Has th, safety, and general w gned to: ostly flood control proje ts associated with flood lities such as water and flood hazard; g for the second use and	option but as eny these regulation cards Act were a welfare, and to n cts; ling and general gas mains, elect l development of	forced by the NJE as. In addition, po dopted in 2007 an ninimize public an lly undertaken at a tric, telephone an Gareas of special J	DEP, the articipation in nd amended nd private losse the expense of d sewer lines,
<ul> <li>H. Ensure that those who oc</li> <li>The Ordinance was last revised in 2020</li> </ul>	cupy the areas of s but does not inclu	pecial flood hazard ass	ume responsibili reeboard require	ity for their action	15.
Wellhead Protection	No	-	No	-	-
Comment:		r		[]	
Emergency Management	Yes	Local	No	Yes	-
Comment: Chapter 186 Fire Control Chapter 195 Fire Prevention					
Climate Change	No	-	No	-	-
Comment:					
Disaster Recovery Ordinance	No	-	No	-	-
Comment:					
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:					
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	No	Yes	-
Comment: • These ordinances follows Steep Slopes -	Land Use ordina	aga within Township og	da		
Planning Documents	Luna Ose oralla	ice within 10whship co			
Comprehensive / Master Plan	Yes	Local	Yes	Yes	_
Comment: 2018 Revised NJ Statute 40:27-2; the county. The master plan of a county show the county planning board's recom among other things, the general locatio developments, parkways, playgrounds, j the general location and extent of foress water supply, sanitary and drainage fa important to the development of the cou municipalities within the county in any advise the board of chosen commission expenditures. Per State of NJ Municipal	with the accompa- nmendations for the n, character, and a forests, reservation (s, agricultural are cilities, or the proto- nty. The county pla matters whatsoever ers with respect to I Land Use Law (M	nying maps, plats, char e development of the te extent of streets or road ns, parks, airports, and as, and open-develop ection of urban develop inning board shall enco which may concern the the formulation of develop	ts, and descripti rritory covered s, viaducts, brid other public wa ent areas for pu ment, and such urage the co-op e integrity of the lopment program Aug 1, 1976 40:	ve and explanator by the plan, and n ges, waterway an ws, grounds, place rposes of conserv other features as eration of the loce county master pl ns and budgets fo 55D-28 provides	ry matter, shall nay include, nd waterfront es and spaces; vation, food and may be al an and to or capital the required

components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity. The Planning Board is responsible for this plan, which was re-examined on November 7, 2012.





		Authority that		Have aspects of the H been integrated into y codes/ordinances/pla		
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Capital Improvement Plan	Yes	Local	No	Yes	-	
Comment:						
The Engineering Department and DPW Disaster Debris Management Plan	is responsible for Yes	this plan, which is upda Local	<i>ited annually, me</i> No	ost recently in Ap Yes	ril 2016.	
Comment:	103	Local	110	103	_	
	N		N			
Floodplain or Watershed Plan	No	-	No	-	-	
Comment:		<b>*</b> 1	**	**		
Stormwater Management Plan Comment:	Yes	Local	Yes	Yes	-	
include groundwater recharge, runoff q consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge of major development to be located with without prior authorization from the De						
Stormwater Pollution Prevention Plan	No	-	Yes	-	-	
<ul> <li>Comment:</li> <li>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.</li> </ul>						
Urban Water Management Plan	No	-	No	-	-	
Comment:						
Habitat Conservation Plan	Yes	Local	No	Yes	-	
Comment:	•					
Economic Development Plan	No	-	No	-	-	
Comment:		I.		I		
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-	
<ul> <li>Comment:</li> <li>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.</li> </ul>						
Community Wildfire Protection Plan	Yes	Local	No	Yes	-	
Comment:						
Community Forest Management Plan	Yes	Local	No	Yes	-	
Comment:						



		Authority that	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)		If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Transportation Plan	No	-	No	-	-
Comment:					
Agriculture Plan	Yes	County	No	Yes	-
Comment: <ul> <li>Sussex County Agricultural board assist</li> </ul>	s in Preserved lan	ds. Tax Assessor by ord	dinance confirm	s farmland assess	ment
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: • The Planning Board and Environmental in 2014. Response/Recovery Planning	Commission are r	responsible for this plan	, which was add	ppted 2012. The E	RI was updated
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-
Comment:					
Each county and municipality in the Stain necessary to implement the plan. Each H Emergency Planning Guidelines have be subsequent scheduled review of the State The Office of Emergency Management is Threat & Hazard Identification & Risk Assessment (THIRA)	Emergency Operation of the construction of the	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2	ted no later than ncy Managemen 222, s.19.	one year after th	e State
Each county and municipality in the Stain necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State The Office of Emergency Management is Threat & Hazard Identification & Risk Assessment (THIRA) Comment:	Emergency Operative en adopted by the E Emergency Oper Stresponsible for the Yes	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2 his plan, which was ado Local and County	ted no later thar ncy Managemen 222, s. 19. pted in 2014. No	one year after th at and shall be eva Yes	e State
Each county and municipality in the Stain necessary to implement the plan. Each H Emergency Planning Guidelines have be subsequent scheduled review of the State The Office of Emergency Management is Threat & Hazard Identification & Risk Assessment (THIRA) Comment: Post-Disaster Recovery Plan	Emergency Operation een adopted by the e Emergency Oper s responsible for th	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2 his plan, which was ado	ted no later than ncy Managemen 222, s.19. pted in 2014.	one year after th to and shall be eva	e State
Each county and municipality in the Stain necessary to implement the plan. Each H Emergency Planning Guidelines have be subsequent scheduled review of the State The Office of Emergency Management is Threat & Hazard Identification & Risk Assessment (THIRA) Comment: Post-Disaster Recovery Plan Comment:	Emergency Operative en adopted by the Emergency Oper s responsible for th Yes Yes	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2 his plan, which was ado Local and County Local and County	ted no later than ncy Managemen 222, s.19. pted in 2014. No No	a one year after th tot and shall be eva Yes Yes	e State
Each county and municipality in the Stain necessary to implement the plan. Each H Emergency Planning Guidelines have be subsequent scheduled review of the State The Office of Emergency Management is Threat & Hazard Identification & Risk Assessment (THIRA) Comment: Post-Disaster Recovery Plan Comment: Continuity of Operations Plan	Emergency Operative en adopted by the E Emergency Oper Stresponsible for the Yes	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2 his plan, which was ado Local and County	ted no later thar ncy Managemen 222, s. 19. pted in 2014. No	one year after th at and shall be eva Yes	e State
Each county and municipality in the State necessary to implement the plan. Each H Emergency Planning Guidelines have be subsequent scheduled review of the State The Office of Emergency Management is Threat & Hazard Identification & Risk Assessment (THIRA) Comment: Post-Disaster Recovery Plan Comment: Continuity of Operations Plan Comment:	Emergency Operative en adopted by the Emergency Oper s responsible for th Yes Yes Yes	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2 his plan, which was ado Local and County Local and County Local and County	ted no later than ncy Managemen 222, s.19. pted in 2014. No No	Yes Yes	e State uluated at such - - -
Each county and municipality in the Stain necessary to implement the plan. Each H Emergency Planning Guidelines have be subsequent scheduled review of the State The Office of Emergency Management is Threat & Hazard Identification & Risk Assessment (THIRA) Comment: Post-Disaster Recovery Plan Comment: Continuity of Operations Plan Comment: Public Health Plan	Emergency Operative en adopted by the Emergency Oper s responsible for th Yes Yes	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2 his plan, which was ado Local and County Local and County	ted no later than ncy Managemen 222, s.19. pted in 2014. No No	a one year after th tot and shall be eva Yes Yes	e State
Each county and municipality in the State necessary to implement the plan. Each H Emergency Planning Guidelines have be subsequent scheduled review of the State The Office of Emergency Management is Threat & Hazard Identification & Risk Assessment (THIRA) Comment: Post-Disaster Recovery Plan Comment: Continuity of Operations Plan Comment:	Emergency Operative en adopted by the Emergency Oper s responsible for th Yes Yes Yes	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2 his plan, which was ado Local and County Local and County Local and County	ted no later than ncy Managemen 222, s.19. pted in 2014. No No	Yes Yes	e State uluated at such - - -

# Table 9.21-4. Development and Permitting Capability

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





#### ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	-
Environmental Board / Commission	Yes	Environmental Commission
Open Space Board / Committee	No	-
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Swift911, Fire whistle
Maintenance program to reduce risk	Yes	Stormwater maintenance, tree trimming
Mutual aid agreements	Yes	Neighboring communities and County
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	CFO
Staff with training in green infrastructure	Yes	Township Engineer
Staff with education/knowledge/training in low impact development	No	-
Surveyor	No	-
Stormwater engineer	Yes	Township Engineer
Personnel skilled or trained in GIS applications	Yes	Township Engineer
Local or state water quality professional	No	-
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	Lisa Chammings, Mayor/OEM
Watershed planner	Yes	Township Engineer, Planning and Zoning Engineer
Environmental specialist	No	-
Grant writers	No	-
Resilience Officer	No	-
Other: Professionals trained in conducting damage assessments	Yes	Engineer

#### Table 9.21-5. Administrative and Technical Capabilities

#### **FISCAL CAPABILITY**

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

#### Table 9.21-6.Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital Improvements Project Funding	Yes



Financial Resource	Accessible or Eligible to Use?
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	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 Township of Stillwater.

#### Table 9.21-7. 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; Under the Emergency Management tab on the website, the plan is described in part.
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes; The municipal website and Facebook page are used to reach out to residents during emergencies as well as during times to help prepare in case needs become present.
Do you have any citizen boards or commissions that address issues related to hazard mitigation? -If yes, briefly describe.	Yes. The Township has a CERT team that assists as needed during emergencies as well as during non- emergencies to help educate our residents.
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, briefly describe.	Yes; Again this would be the CERT Team as well as the Public Safety committee.

### **COMMUNITY CLASSIFICATIONS**

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

Table 9.21-8.	<b>Community Classifications</b>
---------------	----------------------------------

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	4.4	2009; currently being updated
Public Protection (Fire ISO Protection Class)	Yes	04/4X	July 1, 2014
Storm Ready Certification	No	-	-
Firewise Community Classification	Yes – Lake Plymouth Community Association	N/A	2006
Sustainable Jersey	Yes	Not certified	Joined program on July 19, 2011





#### 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.

Hazard	Adaptive Capacity (Capabilities) – Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Strong
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

#### Table 9.21-9. Adaptive Capacity

Notes:

Strong = Capacity exists and is in use; Moderate = Capacity may exist, but is not used or could use some improvement;

Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

#### NATIONAL FLOOD INSURANCE PROGRAM

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

#### Table 9.21-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Zoning and Construction
Who is your floodplain administrator? (name, department/position)	Joe Golden, Zoning Officer
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	August 2, 2011
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
When was the most recent Community Assistance Visit or Community Assistance Contact?	January 27, 1994
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? -If so, state what they are.	No





Criterion	Response
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 does not feel adequately supported or trained to fulfill his responsibilities as the municipal floodplain administrator. The FPA indicated that he would consider attending continuing education and certification training if offered in the county.
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
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	7 policies \$3,036 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	5 claims \$87,323 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No
*According to FEMA statistics as of October 13, 2020	

Reference: FEMA 2020

#### **OPPORTUNITIES FOR FUTURE INTEGRATION**

• Flood Damage Prevention Ordinance: The Township will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement. (2021-Stillwater-003)

# 9.21.5 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 Stillwater'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 9.20-11 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 9.21-11. 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 <sup>rd</sup> and 24th.	Roadway closures, downed trees and powerlines, extended power outages, overtime for staff





Date(s) of Event	Event Type (disaster declaration if applicable)	Sussex County Designated?	Summary of Event	Summary of Local Damages and Losses
January 20, 2020 and continuing	EM-3451, DR- 4488: COVID- 19 Pandemic	Yes	The coronavirus pandemic resulted in the need for shutdowns and social distancing and mask requirements.	The Township was subject to municipal office closures and social distancing and masking requirements.
August 4, 2020	Tropical Storm Isaias	Pending	Tropical Storm Isaias brought strong winds and downpours to Sussex County.	Roadway closures, downed trees and powerlines, extended power outages, overtime for staff
February 1, 2020	Winter Storm Orlena	Pending	36 inches of snow fell during Winter Storm Orlena	Roadway closures, overtime for DPW staff

Source: FEMA 2020, NOAA NCEI 2020

# 9.21.6 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 Stillwater 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 Stillwater 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 Stillwater has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

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

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

Source: FEMA 2019 Note: The number of SRL properties excludes RL properties.

#### **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.

		Expo	osure
Name	Туре	1% Event	0.2% Event
21-8 Wintermute's Mill Dam	Dam	Х	Х
21-19 Paulinskill Lake Dam	Dam	Х	Х
21-33 County Line Dam	Dam	Х	Х

#### Table 9.21-12. Critical Facilities and Lifelines Flood Exposure

Source: Sussex County Planning Partnership 2020





#### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

The Flood Damage Prevention Ordinance requires update to include freeboard.

#### 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 Stillwater 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 Stillwater. The Township of Stillwater 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 Stillwater agreed with the calculated hazard rankings.

#### Table 9.21-13. Township of Stillwater Hazard Ranking

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

### 9.21.7 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 9.20-15 and Table 9.20-16 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.





			Status (In Progress, No		the 2021 HMP odate?
2016 Action Number Action Description		Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Stillwater- 1 (new)	Ensure continuity of operations at critical facilities. The following location is identified at this time: Stillwater Township Town Hall Generator	Township Committee	Complete, funded through FEMA		
Stillwater- 2 (old #8)	Provide information on all types of hazards, preparedness and mitigation measures, and responses through social media and on the Township website.	Township	Ongoing Capability		
Stillwater- 3 (old #7)	Implement Fire Wise Program throughout the Township.	Township	No Progress		
Stillwater- 4 (revised old #6)	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood- proofing) or acquisition / relocation to protect structures from future damage. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option. Phase 2: Work with the property owners to implement selected action based on available funding and local match availability.	Township / Homeowner	Complete; there are no repetitive loss properties remaining in the Township.		

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

• An extensive plan is in place by the Swartswood Lake Association to address harmful algal bloom. Through support by resolution of the Township Committee, the Swartswood Lake Association has secured grants to assist in water quality that will help with mitigation of the blooms.

#### PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE

The Township of Stillwater 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 Stillwater 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 9.20-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Stillwater 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 9.20-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.21-15.	<b>Proposed Hazard</b>	<b>Mitigation Initiatives</b>
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Initiative	Mitigation Initiative	Description of the Problem and	New or Existing	Hazard(s ) to be	Goals	Lead and Support	Potential Funding	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
Number 2021- Stillwater -001	Emergency Operations Center Roof	Solution Problem: The Emergency Operations Center at 931 Swartswood Road requires a roof replacement to meet high wind standards and maintain continuity of operations. The facility has multiple uses for the base of operations for Emergency Management, as a sheltering location, and as a community center. The facility is supported by a backup generator.	Assets?	Mitigated Hurricane, Nor'Easter , Severe Weather, Severe Winter	1, 2, 6	Agencies Engineer, OEM	Sources FEMA HMGP, BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt	Protect ion of continu ity of operati	Medi um	Wi thi 5 ye	Hig h	Cat SIP	CRS 44
		<b>Solution:</b> The Township Engineer will determine the necessary high wind design standards and costs of a new roof. The Township will then install the new roof.		Weather	ıer		Performanc e Grants (EMPG) Program, Township Budget	ons		ars			
2021- Stillwater -002	Kohlbocker Road	Problem:Kohlbocker Road is eroding and is beginning to cause the collapse of the roadway along the bank of the stream. The elevation is relatively high as well. This road is an ingress and egress to a large lake community within Stillwater and Hampton Township.Exist	Existing	Severe Weather, Flood	1, 2	Engineer, DPW	HMGP, BRIC, Township	Protect ion of roadwa	Medi um	Wi thi n 5	Hig h	SIP	РР
-002		<b>Solution:</b> The Township Engineer will design a means of correcting and fixing this issue. This is an extensive process that would need plan design, and NJDEP permits.		Flood			Budget	У		ye ars			
2021- Stillwater	Flood Damage Prevention	<b>Problem</b> : The Township's Flood Damage Prevention Ordinance lacks language to include the state mandated freeboard requirement.	New	Flood	2	Administrat	Township	Meet	Staff	Wi thi n 6	Hig	LPR	PR
-003	Ordinance Update	<b>Solution:</b> The Township will update the Flood Damage Prevention Ordinance to include the state mandated freeboard requirement.		r1000		ion	budget	standar ds	time	m on ths	h	LIK	
2021- Stillwater -004	Duck Pond Road	<b>Problem</b> : Duck Pond Road is an area that floods during times of moderate to heavy rainfall over extended periods of time. Residents and emergency services often loose ingress or egress through this	Existing	Flood	1	Engineer, DPW	HMGP, BRIC, Township budget	Flood risk reduce d	High	Wi thi n 5	Hig h	SIP	РР



# Section 9.21 – Township of Stillwater

Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution roadway during moderate to heavy extended periods of rain. Solution: The Engineer will determine the elevation needed to reduce flooding on the roadway and maintain access. Public works will then carry out the elevation design.	New or Existing Assets?	Hazard(s ) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	ye ars	Priority	Mitigation Category	CRS Category
2021- Stillwater -005	Vegetation Management	<ul> <li>Problem: Several specific areas of the Township continually have trees coming down across roadways which consequently take down power lines. The DPW can do small jobs but not jobs of large trees near power and other utility lines. JCPL only maintains certain distances from their lines. Other utilities only do reactive vegetative management rather than preventative mitigation. Having the financial resources to have properly equipped and insured Tree Removal companies remove trees within the Township Road ROW's would be extremely beneficial to mitigating against power outages both long and short term in length.</li> </ul>	N/A	Hurricane/ Tropical Storm, Nor'Easter , Severe Weather, Severe Winter Weather	2	Administrat ion, DPW	HMGP, Township budget	Reduct ion in falling trees and power outage s	Medi um	Wi thi 5 ye ars	Hig h	NSP	NR
		funding support to have a forester assess trees, complete deed searches to verify Township right of way in targeted areas, and then have the tree removal completed by qualified personnel.											
2021- Stillwater -006	Controlled Burns	<b>Problem:</b> Wildfire risk exists in the Township. Drought and wildfire go hand in hand in Stillwater Township. As droughts or extended dry periods never classified as droughts occur, the undergrowth gets overly dry. Invasive species have caused forested areas to die out and leave large undergrowth areas that are getting thicker and harder to manage.	N/A	Drought, Wildfire, Invasive Species	1, 2	Local Fire Department s, NJ Forest Fire Service	Township budget, Fire Departmen t budgets	Reduct ion in wildfir e risk	Low	2 ye ars	Hig h	NSP	NR
		<b>Solution:</b> The Township will pursue expansion of controlled burns, working with the local fire department and the NJ											







Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution Forest Fire Service to address forests on Township, state, and federal lands.	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- Stillwater -007	Stand Pipes and Dry Hydrants	<ul> <li>Problem: Wildfire risk exists in the Township. Drought and wildfire go hand in hand in Stillwater Township. As droughts or extended dry periods never classified as droughts occur, the undergrowth gets overly dry. Invasive species have caused forested areas to die out and leave large undergrowth areas that are getting thicker and harder to manage.</li> <li>Solution: The Township will work to install stand pipes or dry hydrants in various locations. Installation will be strategically located to areas that would assist in protection of homes near these high undergrowth areas.</li> </ul>	New	Drought, Wildfire, Invasive Species	1, 2, 5	Administrat ion, Local Fire Department	Assistance to Firefighters Grant Program, HMGP, BRIC, Township budget	Increas ed wildfir e fightin g capabil ities	High	Wi thi 5 ye ars	Hig h	SIP	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

#### 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.

Potential FEMA HMA Funding Sources:

FMA

BRIC

HMGP

Program

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 ٠ 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.

Flood Mitigation Assistance Grant Program

Building Resilient Infrastructure and Communities

Hazard Mitigation Grant Program

- . Natural Systems Protection (NSP) – These are actions that minimize damage and losses and preserve or restore the functions of natural systems.
- ٠ 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.



#### 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.



- 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 9.21-16	Summary	of Evaluation	and Action	Priorities
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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- Stillwater- 001	Emergency Operations Center Roof	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2021- Stillwater- 002	Kohlbocker Road	1	1	1	0	1	1	0	1	1	1	1	0	1	0	9	High
2021- Stillwater- 003	Flood Damage Prevention Ordinance Update	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2021- Stillwater- 004	Duck Pond Road	1	1	1	1	1	1	0	1	1	1	0	1	1	1	12	High
2021- Stillwater- 005	Vegetation Management	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2021- Stillwater- 006	Controlled Burns	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
2021- Stillwater- 007	Stand Pipes and Dry Hydrants	1	1	1	1	1	1	0	1	1	1	1	0	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.



A



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

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard





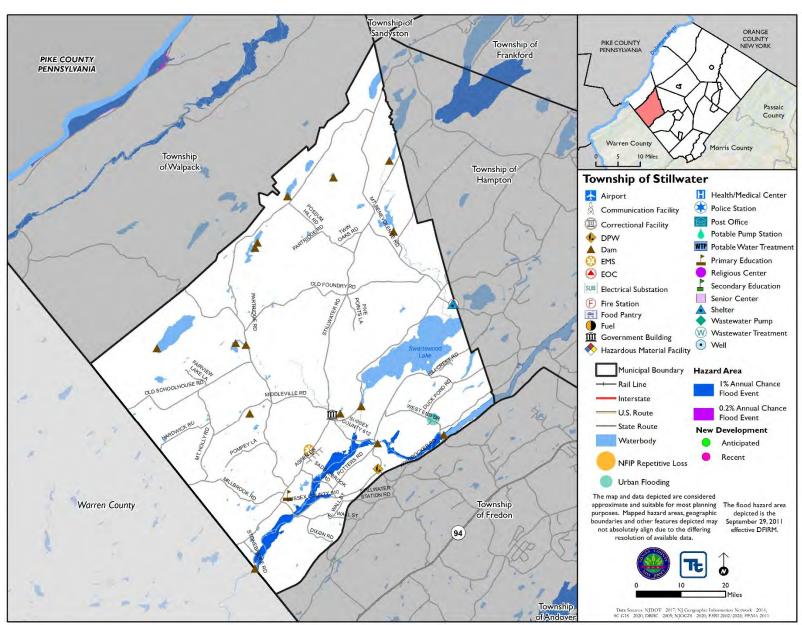


Figure 9.21-1. Township of Stillwater Hazard Area Extent and Location Map 1



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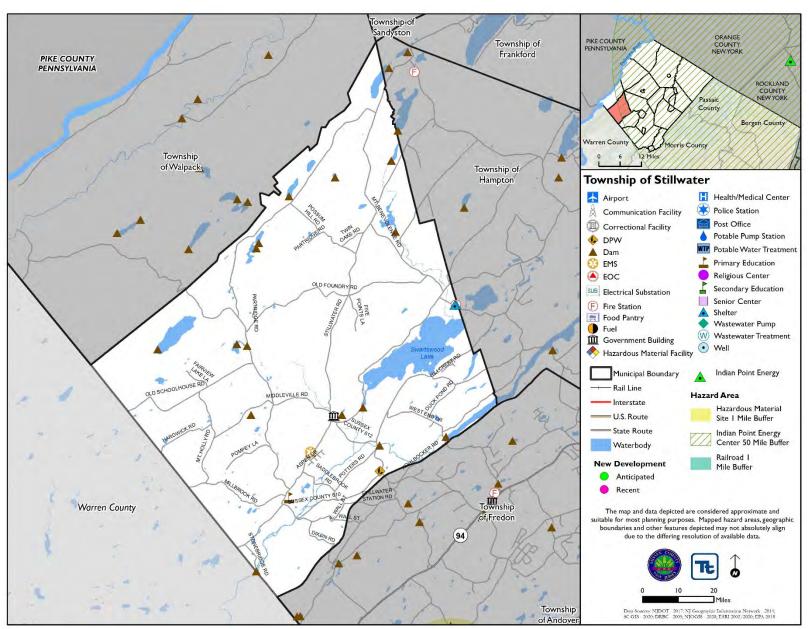


Figure 9.21-2. Township of Stillwater Hazard Area Extent and Location Map 2



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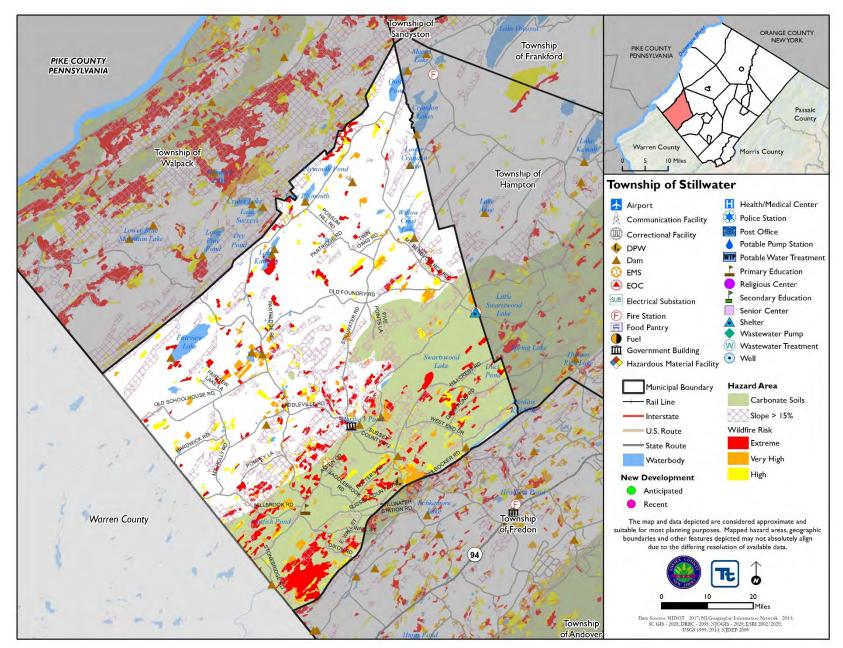


Figure 9.21-3 Township of Stillwater Hazard Area Extent and Location Map 3



		Action V	Vorks	sheet				
Project Name:	Emergency Operati	Emergency Operations Center Roof						
Project Number:	2021-Stillwater-001							
Risk / Vulnerability								
Hazard(s) of Concern:	Hurricane, Nor'Eas	ter, Severe	e Weat	ther, Sev	vere Winter	Weather		
Description of the Problem:	meet high wind star for the base of oper community center.	ndards and ations for The facilit	maint Emerg	tain con gency M	tinuity of op lanagement,	perations. as a shel	uires a roof replacement to The facility has multiple uses tering location, and as a for.	
Action or Project Intended								
Description of the Solution:	The Township Engi a new roof. The To						design standards and costs of	
Is this project related to a	<b>Critical Facility?</b>	Yes	$\boxtimes$	No				
Level of Protection:	500-year storm	event			Benefits oided):		Municipal building protected from high winds	
Useful Life:	15 years					1, 2, 6		
Estimated Cost:	Medium		Mitigation Action Type:			pe:	Structure and Infrastructure Projects (SIP)	
Plan for Implementation								
Prioritization:	High			ired Ti lement	meframe f tation:	or	Within 5 years	
Estimated Time Required for Project Implementation:	1 year				unding So	urces:	FEMA HMGP, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Town Budget	
Responsible Organization:	Engineer, OEM		Local Planning Mechanisms to be Used in Implementation if any:				Hazard Mitigation, Emergency Management	
Three Alternatives Conside	ered (including No	Action)				_		
	Action		F		ed Cost		Evaluation	
A14	No Action Rebuild facility to			\$			Problem continues.	
Alternatives:	standards			Hi	gh		Costly and not necessary	
	Build secondary facility protected to new standardsHighCostly and not necessary					Costly and not necessary		
Progress Report (for plan	naintenance)							
Date of Status Report:								
Report of Progress:								
Update Evaluation of the Problem and/or Solution:								





	Action Worksheet					
Project Name:	Emergency Operations Cen	Emergency Operations Center Roof				
Project Number:	2021-Stillwater-001					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1	Project will protect critical services of the Emergency Operations Center, specifically as a shelter				
Property Protection	1	Project will protect Emergency Operations Center from storm damage.				
Cost-Effectiveness	1					
Technical	1	The project is technically feasible				
Political	1					
Legal	1	The Township has the legal authority to complete the project.				
Fiscal	0	Project requires funding support.				
Environmental	1					
Social	1					
Administrative	1					
Multi-Hazard	1	Hurricane, Nor'Easter, Severe Weather, Severe Winter Weather				
Timeline	0	Within 5 years				
Agency Champion	1	Engineer, OEM				
Other Community Objectives	1	Protection of critical services				
Total	12					
Priority (High/Med/Low)	High					



		Action W	orks	heet		
Project Name:	Kohlbocker Road	Kohlbocker Road				
Project Number:	2021-Stillwater-00	2				
Risk / Vulnerability						
Hazard(s) of Concern:	Severe Weather, Fl	ood				
Description of the Problem:	bank of the stream.	The elevat	ion is		ose of the roadway along the is road is an ingress and egress ship.	
Action or Project Intended						
Description of the Solution:				a means of correcting and f an design, and NJDEP perr	ixing this issue. This is an nits.	
Is this project related to a	Critical Facility?	Yes		No 🖂		
Level of Protection:	TBD			nated Benefits ses avoided):	Beaver Meadow Road kept open.	
Useful Life:	10 years			s Met:	1, 2	
Estimated Cost:	Medium		Mitigation Action Type:		Structure and Infrastructure Project	
Plan for Implementation						
Prioritization:	High			red Timeframe for lementation:	Within 5 years	
Estimated Time Required for Project Implementation:	1 year		Pote	ntial Funding Sources:	HMGP, BRIC, Municipal budget	
Responsible Organization:	Engineer, DPW		Mec	l Planning hanisms to be Used in lementation if any:	Hazard Mitigation, Stormwater Management	
Three Alternatives Conside	ered (including No	Action)				
	Action			Estimated Cost	Evaluation	
Alternetines	No Action	-		\$0	Problem continues.	
Alternatives:	Close Lower Cre Reroute Road to a			\$200 N/A	Isolates residents Not technically feasible	
	less flood ri			N/A	Not technically leasible	
Progress Report (for plan						
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





	Acti	on Worksheet
Project Name:	Kohlbocker Road	
Project Number:	2021-Stillwater-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Maintains ingress and egress to a large lake community within Stillwater and Hampton Township
Property Protection	1	Protects Kohlbocker Road from flood damage
Cost-Effectiveness	1	
Technical	0	
Political	1	
Legal	1	The Township has the legal authority to complete the project.
Fiscal	0	The project requires grant funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Weather, Flood
Timeline	0	
Agency Champion	1	Engineer, DPW
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	





	Actior	Worksheet	
Project Name:	Duck Pond Road		
Project Number:	2021-Stillwater-004		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	extended periods of time. R through this roadway during	that floods during times of moderate esidents and emergency services ofte g moderate to heavy extended period	en loose ingress or egress
Action or Project Intended			
Description of the Solution:		e the elevation needed to reduce floo ks will then carry out the elevation of	
Is this project related to a	Critical Facility? Yes	No 🛛	
Level of Protection:	TBD	Estimated Benefits (losses avoided):	Flood risk reduced
Useful Life:	50 years	Goals Met:	1
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Project
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, Township budget
Responsible Organization:	Engineer, Public Works	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation, Stormwater management
Three Alternatives Conside	ered (including No Action)		
	Action	Estimated Cost	Evaluation
	No Action Remove flood prone	\$0 N/A	Problem continues. Loss of access to
Alternatives:	roadways		neighborhoods, increased emergency risk
	Buyout properties that exist near flood prone roadways	Very high	Costly, loss of large portion of community
Progress Report (for plan	naintenance)		
Date of Status Report:			
<b>Report of Progress:</b>			
Update Evaluation of the Problem and/or Solution:			





	Action Worksheet					
Project Name:	Duck Pond Road					
Project Number:	2021-Stillwater-004					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1	Project will protect emergency access				
Property Protection	1	Project will protect roadway from flood damage				
Cost-Effectiveness	1					
Technical	1	The project is technically feasible				
Political	1					
Legal	1	The Township has the legal authority to complete the project				
Fiscal	0	Project requires funding support				
Environmental	1					
Social	1					
Administrative	1					
Multi-Hazard	0	Flood				
Timeline	1	Within 5 years				
Agency Champion	1	Engineer, Public Works				
Other Community Objectives	1					
Total	12					
Priority (High/Med/Low)	High					



	Act	ion V	Vorks	heet		
Project Name:		Vegetation Management				
		2021-Stillwater-005				
Project Number:	2021-Stillwater-005					
Risk / Vulnerability						
Hazard(s) of Concern:	-			er, Severe Weather, Severe		
Description of the Problem:	which consequently take trees near power and othe lines. Other utilities only mitigation. Having the fir Removal companies rem beneficial to mitigating a	Several specific areas of the Township continually have trees coming down across roadways which consequently take down power lines. The DPW can do small jobs but not jobs of large trees near power and other utility lines. JCPL only maintains certain distances from their lines. Other utilities only do reactive vegetative management rather than preventative mitigation. Having the financial resources to have properly equipped and insured Tree Removal companies remove trees within the Township Road ROW's would be extremely beneficial to mitigating against power outages both long and short term in length.				
Action or Project Intended			1.			
Description of the Solution:	The Township will pursue funding support to have a forester assess trees, complete deed searches to verify Township right of way in targeted areas, and then have the tree removal completed by qualified personnel.					
Is this project related to a	Critical Facility? Ye	es		No 🖂		
Level of Protection:	N/A			nated Benefits es avoided):	High risk trees removed	
Useful Life:	5 years			s Met:	2	
Estimated Cost:	Medium		Mitig	ation Action Type:	Natural Systems Protection	
Plan for Implementation						
Prioritization:	High			red Timeframe for ementation:	Within 5 years	
Estimated Time Required for Project Implementation:	6 months		Pote	ntial Funding Sources:	HMGP, Township budget	
Responsible Organization:	Administration, DPW		Mech	l Planning nanisms to be Used in ementation if any:	Hazard mitigation	
Three Alternatives Conside	ered (including No Actio	on)				
	Action			Estimated Cost	Evaluation	
	No Action			\$0	Problem continues.	
Alternatives:	Removal all trees with f risk on power lines and private property			N/A	Private property issues	
	Encourage residents to report problem trees			\$100	Reactive instead of preemptive. Not as effective in controlling risk.	
Progress Report (for plan i	naintenanc <u>e</u> )					
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





	Action Worksheet					
Project Name:	Vegetation Management					
Project Number:	2021-Stillwater-005					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	0					
Property Protection	1	Project will protect property from damage from falling trees				
Cost-Effectiveness	1					
Technical	1					
Political	1					
Legal	1	The Township has the legal authority to conduct the project				
Fiscal	1	Municipal budget				
Environmental	1					
Social	1					
Administrative	1					
Multi-Hazard	1	Hurricane/Tropical Storm, Nor'Easter, Severe Weather, Severe Winter Weather				
Timeline	0	Within 5 years				
Agency Champion	1	Administration, DPW				
Other Community Objectives	1					
Total	12					
Priority (High/Med/Low)	High					





	Action	Worksheet				
Project Name:	Stand Pipes and Dry Hydrants					
Project Number:	2021-Stillwater-007					
Risk / Vulnerability						
Hazard(s) of Concern:	Drought, Wildfire, Invasive S	pecies				
Description of the Problem:	Township. As droughts or ex undergrowth gets overly dry. large undergrowth areas that	Wildfire risk exists in the Township. Drought and wildfire go hand in hand in Stillwater Township. As droughts or extended dry periods never classified as droughts occur, the indergrowth gets overly dry. Invasive species have caused forested areas to die out and leave arge undergrowth areas that are getting thicker and harder to manage.				
Action or Project Intended Description of the Solution:	The Township will work to install stand pipes or dry hydrants in various locations. Installation will be strategically located to areas that would assist in protection of homes near these high undergrowth areas.					
Is this project related to a	Critical Facility? Yes	🗋 No 🖾				
Level of Protection:	To be determined	Estimated Benefits (losses avoided):	Increased wildfire fighting capabilities			
Useful Life:	20 years	Goals Met:	2			
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Project			
Plan for Implementation						
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years			
Estimated Time Required for Project Implementation:	Within 5 years	Potential Funding Sources:	Assistance to Firefighters Grant Program, HMGP, BRIC, Township budget			
Responsible Organization:	Administration, Local Fire Department	Local Planning Mechanisms to be Used in Implementation if any:	Capital improvements planning			
Three Alternatives Conside	ered (including No Action)					
	Action	Estimated Cost	Evaluation			
Alternatives:	No Action Purchase tanker truck for water	\$0 \$190,000	Problem continues. Transportation route lost, emergency service response times.			
	Develop contract with neighboring towns for fire response	N/A	Too slow of response times, towns unable			
Progress Report (for plan	naintenance)					
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Action Worksheet							
Project Name:	Stand Pipes and Dry Hydra	nts					
Project Number:	2021-Stillwater-007						
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Fire response preserved to protect life					
Property Protection	1	Fire response preserved to protect property					
Cost-Effectiveness	1						
Technical	1	The project is technically feasible					
Political	1						
Legal	1	The Township has the legal authority to complete the project					
Fiscal	0	Project requires funding support					
Environmental	1						
Social	1						
Administrative	1	Coordination with fire departments					
Multi-Hazard	1	Drought, Wildfire, Invasive Species					
Timeline	0	Within 5 years					
Agency Champion	1	Administration, Local Fire Department					
Other Community Objectives	1						
Total	12						
Priority (High/Med/Low)	High						





# 9.22 BOROUGH OF SUSSEX

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

# 9.22.1 Hazard Mitigation Planning Team

The Borough of Sussex 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).

Primary Point of Contact		Alternate Point of Contact				
Name / Title: Floyd Southard, OEM Coordinator Address: 2 Main Street, Sussex, NJ 07461 Phone Number: (973) 534-7258 Email: oem@sussexboro.com		Name / Title: Robert Regavich, Deputy OEM Address: 2 Main Street, Sussex, NJ 07461 Phone Number: (973) 271-2047 Email: rregavich@gmail.com				
NFIP Floodplain Administ	rator					
Name / Title: Kevin Kervatt, Address: 2 Main Street Susse Phone Number: (973) 875-48 Email: zoning@sussexboro.c	x NJ 07461 31					
Name	Title	Method of Participation				
Floyd Southard	OEM Coordinator	Primary point of contact, provided data and information, contributed to mitigation strategy; attended kickoff meeting, annex training, risk assessment meeting and mitigation strategy workshop; assisted with public outreach; reviewed annex*				
Robert Regavich	Deputy OEM	Alternate point of contact; attended the kickoff meeting				
Kevin Kervatt Zoning Officer NI		NFIP floodplain administrator; reviewed annex*				
Edward J. Meyer Mayor Re		Reviewed annex*				
Harold Pellow	Engineer	Reviewed annex*				
Michael Marceau	CFO	Reviewed annex*				
Joseph Butto	Construction Official	Reviewed annex*				
Ken Nelson	Planner	Reviewed annex*				
Brian Demarest	Public Works	Reviewed annex*				
Marc Leech	Fire Chief	Reviewed annex*				

#### Table 9.22-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





# 9.22.2 Jurisdiction Profile

The Borough of Sussex is located in northern Sussex County and is fully surrounded by the Township of Wantage. It has a total area of 0.6 square miles. Clove Brook flows through the Borough.

According to the U.S. Census, the 2010 population for the Borough of Sussex was 2,130 The estimated 2018 population was 1,854, a 12 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 5.7 percent of the population is 5 years of age or younger and 12.6 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.

# 9.22.3 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 9.21-2 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.

Type of Development	2(	015	20	016	2(	017	20	018	20	19
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	1	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	Devel	Type of # of Units / Development Structures		<b>Location</b> (address and/or block and lot)		Ha: Zon	Known Hazard Zone(s)*		Description / Status of Development	
	Recent	Major Dev	-	nt and Inf		ure from 2	2015 to P	resent		
			N	one identi	fied					
Known or Anticipated Major Development and					Infrastru	ucture in t	he Next	Five (5) Y	ears	
Shoprite	Grocer and sup busines	porting	1		Block 1 1.01 Block 1 1.03 Block 1 1.02	105 lot	Nuclear Incident Appr Hazard Area, Begi		Approve Beginnin work	

#### Table 9.22-2. Recent and Expected Future Development

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

# 9.22.4 Capability Assessment

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

		Authority that		been integra	ts of the HMP ated into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
Comment: • State mandated on local level under NJA Adopted 9/3/2019 • This code follows State Uniform Constru		-	ı.).	Edition, 2018, N.	IAC 5:24-3.14
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: • State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and me • The Zoning Officer is responsible for thi • The ordinance notes the purpose of secu	to have current zo aster plan. is code in compliar	oning and other land de nce with Chapter 19, Zo	velopment ordin oning.		
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D The governing body may by ordinance r the filing of such plats with the county re condition for the issuance of a permit for or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b.	equire approval of ecording officer an r any development exempt from such s the planning board	subdivision plats by re d approval of site plans , except that subdivision ite plan review and app d whenever the board o	solution of the p s by resolution of n or individual l proval; provided f adjustment has	lanning board as f the planning bo ot applications fo that the resolutions s jurisdiction over	a condition for ard as a r detached one on of the board r a subdivision

## Table 9.22-3. Planning, Legal and Regulatory Capability



		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
<ul> <li>commissioners of any county having a county by said county planning board a set forth and limited hereinafter in this</li> <li>The Land Use Board is responsible for the county of the county</li></ul>	and for the approva section.	al of those subdivisions	affecting county			
Stormwater Management	Yes	Local	Yes	Yes	-	
Comment: • See Title 7 of the NJ Administrative Cod • The Engineering Department is respons.		nce.				
Post-Disaster Recovery	No	-	No	-	-	
Comment:						
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-	
<b>Comment:</b> N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Con improvements, fees for services and amenities, the t and police, as well as any hazards, risks or nuisance	nmission. The POS type of title and ow	S provides information a mership interest being o	such as estimated	d completion dat	es for	
Growth Management	No	-	Yes – if municipality has a Planning Board	-	-	
Comment: • State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make Site Plan Review	lineation of Growt	h Areas and Environs;	Use of the endor	rsed plans in the		
Comment: • Dictated by the Municipal Land Use Law review. NJ Statute 40:27-6.2: The board review of all subdivisions of land within affecting county road or drainage facili planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publ given to the county planning board at le a copy of the official notice of the public • The Land Use Board is responsible for t	l of commissioners the county by said ties as set forth an île of the planning y planning board a notify the county r djoining county ro ic lands shown on ast 10 days prior t e hearing together hese requirements	of any county having a county planning boar d limited hereinafter in and zoning ordinances copy of the planning a planning board of the in bads or other county la the county master plan o the public hearing the with a copy of the prop in compliance with Ch	county planning d and for the app this section. 40 of all municipal nd zoning ordinu- ntroduction of a nds, or lands lyin or official coun- ereon by persond osed ordinance. apter 21.	g board shall pro proval of those su 1:27-6.10 In order lities in the count ances of the muni- ny revision or an ng within 200 fee ty map. Such no al delivery or by c	wide for the ubdivisions r that county y, each icipality in effec nendment of t of a municipa tice shall be	
Environmental Protection	Yes	Local	No	Yes	-	
Comment:     The Zoning Officer is responsible for the     The ordinance notes the purpose "to pro- contribute to the well being of persons, a	omote the establish	ment of appropriate po munities and preservation	pulation densitie			
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	2020-Boroug of Sussex-00	
<ul> <li>Comment:         <ul> <li>The NJ State Law Flood Area Control A federal acts to support minimization of f floodplain ordinances of each municipal the NFIP requires a floodplain ordinance effective June 20, 2016.</li> <li>This ordinance follows Chapter 22- Floog general welfare, and to minimize public</li> </ul> </li> </ul>	lood losses. They lity must be review ce. Regulations for od Hazard Areas.	do not require local ad ed for compliance with r the Flood Control Ha It is the purpose of this	option but as enj these regulation zards Act were a chapter to prom	forced by the NJI is. In addition, p idopted in 2007 a ote the public hea	DEP, the articipation in and amended alth, safety, and	

		Authority that		been integra	s of the HMP ted into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>Protect human life and healt</li> <li>Minimize expenditure of pub</li> <li>Minimize the need for rescue general public;</li> <li>Minimize prolonged busines:</li> <li>Minimize damage to public f streets, bridges located in ar</li> <li>Help maintain a stable tax b to minimize future flood blig.</li> <li>Ensure that potential buyers</li> <li>Ensure that those who occup</li> <li>The ordinance currently lacks the state</li> </ul>	lic money for costl e and relief efforts of acilities and utiliti eas of special flood ase by providing fo ht areas; are notified that pi y the areas of spec	associated with flooding es such as water and ga d hazard; or the second use and de roperty is in an area of rial flood hazard assume	g and generally s mains, electric evelopment of ar special flood ha	c, telephone and s weas of special flow zard; and	ewer lines,
Wellhead Protection	No	-	No	-	-
Comment:		1			
Emergency Management	No	-	No	-	-
Comment:					
Climate Change	No	-	No	-	-
Comment:					
Disaster Recovery Ordinance	No	-	No	-	-
Comment:					
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment:					
Other	No	-	No	-	-
Comment:					
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
Comment: 2018 Revised NJ Statute 40:27-2; the co the county. The master plan of a county, show the county planning board's recon among other things, the general locatio developments, parkways, playgrounds, J the general location and extent of forest water supply, sanitary and drainage fac important to the development of the cou municipalities within the county in any r advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be o	with the accompa- umendations for the n, character, and ef- orests, reservation s, agricultural areac- cilities, or the prote- nty. The county pla- natters whatsoever res with respect to the Land Use Law (M and requires that consistent with the	nying maps, plats, char e development of the te extent of streets or road ns, parks, airports, and as, and open-developm ection of urban develop, inning board shall enco r which may concern tha the formulation of devel (LUL) L. 1975, s. 2, eff. each municipality prepu Master Plan or will now	ts, and descripti rritory covered s, viaducts, brid other public wa ent areas for pu ment, and such urage the co-op e integrity of the opment program Aug 1, 1976 40: tre a master pla t be benefitted fr	ve and explanato, by the plan, and r ges, waterway ar ys, grounds, place rposes of conserv other features as eration of the loc county master pl ns and budgets for 55D-28 provides n and update it e	ry matter, shall nay include, nd waterfront es and spaces; ation, food and may be al an and to or capital the required wery 6 years.
Capital Improvement Plan	Yes	Local	No	Yes	-
Comment:					
Disaster Debris Management Plan	No	-	No	-	2020-Borough of Sussex-007
Comment:					
Floodplain or Watershed Plan	No	-	No	-	-
Comment:	·	·			



		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	<b>Do you have</b> this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Stormwater Management Plan	No	State & Local	Yes	-	-	
Comment: • The Stormwater Management rules (N.J. the required components of regional and design and performance standards for n include groundwater recharge, runoff qu consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge, of major development to be located with without prior authorization from the Dep	d municipal stormy ew (proposed) dev uantity controls, au tormwater manag of stormwater pip stormwater runoj in or to discharge	vater management plan velopment. The design a nd runoff quality contro ement techniques includ es, preserving natural a ff quantity control, storn runoff from the major d	s and establish i nd performance ls. The rules em ling minimizing lrainage feature, nwater runoff qu levelopment into	he stormwater m standards for ne phasize, as a prin disturbance, min, s, etc. The rules a tality control, and a 300-foot ripar	anagement w development nary imizing clso set forth l the prohibition	
Stormwater Pollution Prevention Plan	No	-	Yes	-	-	
as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, wil management plan and implementing or basin cleaning); implementing solids an education component. Urban Water Management Plan	sewer systems, kno such as universiti am establishes the ese sources. The Su dlife feeding, prop linance(s); requiri.	own as MS4s. Under th es and hospitals, and Su Statewide Basic Requis tatewide Basic Requiren er waste disposal, etc.), ng certain maintenance	is program, pern tate, interstate a rements that mu, nents include mu ; the developmen activities (such	nits must be secu nd federal agence st be implemented easures such as: t nt of a municipal as street sweepin	red by ies that operate l to reduce the adoption of stormwater g and catch	
ő	NO	-	NO	-	-	
Comment:	NY.		) Y			
Habitat Conservation Plan Comment:	No	-	No	-	-	
Economic Development Plan	No		No	_		
Comment:	NO	-	NO	-	-	
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-	
Comment: • NJ Coastal Area Facility Review Act (N- including construction, relocation, and e structures, and site preparation. This la	enlargement of bui	ldings or structures, an	d excavation, gr	ading, shore prot	ection	
Community Wildfire Protection Plan	No	-	No	-	-	
Comment:						
Community Forest Management Plan	No	-	No	-	-	
Comment:						
	No	-	No	-	_	
Transportation Plan					-	
Transportation Plan Comment:					-	
•	No	-	No	-	-	
Comment:	No	-	No	-		
Comment: Agriculture Plan	No	-	No	-		
Comment: Agriculture Plan Comment:						



		Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	Do you have this? (Yes/No)			If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Comment:						
<b>Business Development Plan</b>	No	-	No	-	-	
Comment:						
Other Plans	No	-	No	-	-	
Comment:						
Response/Recovery Planning						
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	No	2020-Borough of Sussex-008	
necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State The Office of Emergency Management i.	een adopted by the Emergency Oper	State Office of Emerge ations Plan. L.1989, c.2	ncy Managemen			
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-	
Comment:						
Post-Disaster Recovery Plan	No	-	No	-	-	
Comment:						
Continuity of Operations Plan	No	-	No	-	-	
Comment:						
Public Health Plan	No	-	No	-	-	
Comment:		•		•		
	No	-	No	-	-	
Comment:						

#### Table 9.22-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	No
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

#### **ADMINISTRATIVE AND TECHNICAL CAPABILITY**

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

#### Table 9.22-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position		
Administrative Capability				
Planning Board	Yes	Planning & Zoning		





Staff/Personnel Resource	Available?	Department/Agency/Position
Mitigation Planning Committee	No	-
Environmental Board / Commission	Yes	Shade Tree Commission
Open Space Board / Committee	No	-
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Administrator operates a Nixle alert system
Maintenance program to reduce risk	No	-
Mutual aid agreements	Yes	County
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Planner-Ken Nelson, Engineer-Harold Pellow
Engineers or professionals trained in building or infrastructure construction practices	Yes	Planner-Ken Nelson, Engineer-Harold Pellow
Planners or engineers with an understanding of natural hazards	Yes	Planner-Ken Nelson, Engineer-Harold Pellow
Staff with training in benefit/cost analysis	Yes	CFO
Staff with training in green infrastructure	No	-
Staff with education/knowledge/training in low impact development	No	-
Surveyor	No	-
Stormwater engineer	No	-
Personnel skilled or trained in GIS applications	No	-
Local or state water quality professional	No	-
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	OEM
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	Yes	Bruno Associates
Resilience Officer	No	-
Other: NFIP Floodplain Administrator	Yes	Municipal Zoning Enforcement Officer – Kevin Kervatt
Other: Professionals trained in conducting damage assessments	Yes	Water Sewer Engineer

#### **FISCAL CAPABILITY**

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

#### Table 9.22-6. 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 (Special Assessments)
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





Financial Resource	Accessible or Eligible to Use?
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No
Other	No

#### EDUCATION AND OUTREACH CAPABILITY

The table below summarizes the education and outreach resources available to the Borough of Sussex.

#### Table 9.22-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications	Yes – Administrator as part of the Emergency
office?	Management Committee
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your	
website?	No
-If yes, briefly describe.	
Do you use social media for hazard mitigation education and	
outreach?	No
-If yes, briefly describe.	
Do you have any citizen boards or commissions that address issues	
related to hazard mitigation?	No
-If yes, briefly describe.	
Do you have any other programs already in place that could be	
used to communicate hazard-related information?	No
If yes, briefly describe.	

#### **COMMUNITY CLASSIFICATIONS**

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

#### Participating? Classification Date Classified Program Community Rating System No \_ Building Code Effectiveness Grading Schedule No \_ \_ (BCEGS) Public Protection (Fire ISO Protection Class) Yes 6 2016 Storm Ready Certification No --Firewise Community Classification No \_ \_ Sustainable Jersey No \_ \_ Public Education Program/Outreach (through Yes \_ \_ website, social media)

#### Table 9.22-8. Community Classifications

#### 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.



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	Moderate
Wildfire	Moderate

## Table 9.22-9. Adaptive Capacity

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 does not currently have access to resources to determine the possible impacts of climate change upon the municipality. The Borough 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 9.22-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Zoning
Who is your floodplain administrator? (name, department/position)	Kevin Kervatt/Zoning/Zoning Officer
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 meets minimum requirements set by FEMA and the State.
When was the most recent Community Assistance Visit or Community Assistance Contact?	July 26, 1990
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





	The FPA indicated that there are barriers to running an effective
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?	floodplain management program due to lack of personnel. The FPA also stated that he does not feel adequately supported or trained to fulfill his role as the municipal floodplain administrator and that he would consider attending continuing education and/or certification training on floodplain management if it was mandatory.
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
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	4 policies \$1,910,000 in coverage \$4,325 in premiums
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	4 claims \$65,202 in payments
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	Yes

Source: FEMA 2020

# 9.22.5 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 Sussex'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 9.21-11 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 9.22-11. 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 Weather and Snowstorm	Yes	A major nor'easter, produced record snowfall and blizzard conditions in parts of New Jersey on January 23 <sup>rd</sup> and 24th.	Although the County was impacted, the Borough 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.	Ongoing. PPE supplies purchased. Modified hours for the Borough Hall.

Source: FEMA 2020, NOAA NCEI 2020





# 9.22.6 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 Sussex 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 Sussex 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 Sussex has significant exposure.

#### **REPETITIVE FLOOD LOSSES**

The following summarizes the repetitive and severe repetitive flood losses in the Borough of Sussex.

- Number of repetitive loss (RL) properties: 1
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

#### Source: FEMA 2019

Note: The number of SRL properties excludes RL properties.

#### **CRITICAL FACILITIES AND CRITICAL FACILITIES**

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

		Exposure	
Name	Туре	1% Event	0.2% Event
JCP&L	Electrical Substation		Х
Clove River Dam	Dam	Х	Х
DPW Garage/Sewer Department	DPW	Х	Х

#### Table 9.22-12. Critical Facilities and Lifelines Flood Exposure

Source: Sussex County Planning Partnership 2020 Note: \*Identified lifeline

#### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- The Borough has aging equipment and limited manpower for a long duration winter storm.
- Borough Hall has no backup generator. It was not previously feasible to install until the Borough bought the lot next to the Borough Hall
- Firehouse is used as an EOC which leads to increased usage during a power outage.
- Clove River Dam is a flood risk. The County route and local road run over the Clove Brook which if flooded would take out two bridges that separate the Firehouse from the rest of the town. Flood risk





could be reduced through stream bank stabilization surrounding confluence of Clove Brook and Papakating Creek.

- The DPW Garage/Sewer Department is in floodplain of Papakating Creek.
- The Borough has one repetitive loss property.

### 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 Sussex 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 Sussex. The Borough of Sussex 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 Sussex agreed with the calculated hazard rankings.

#### Table 9.22-13. Borough of Sussex Hazard Ranking

Dam Failure	Disease Outbrea	ak Drought	Earthqu	ake		Flood	Geologic
Medium	Medium	Medium	Low	Low		Medium	Low
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter		vere ather	Severe Winter Weather	Wildfire
Medium	High	Medium	High	Hi	gh	High	Low

## 9.22.7 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 9.21-15 and Table 9.21-16 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.





			Status (In Progress, No		le in the 2021 IP Update?
2016 Action	Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Sussex Boro-1 (old #1)	Stream bank stabilization, rip- wrap instillation surrounding confluence of Clove Brook and Papakating Creek.	DPW Manager	No Progress	x	2020-Borough of Sussex-005
Sussex Boro-2 (old #2)	Stream bank stabilization of town reservoir and feeder waterway to water treatment plant.	DPW Manager	No Progress	x	2020-Borough of Sussex-005
Sussex Boro-3 (old #3)	Armoring of Lake Rutherford Dam located in High Point State Park.	DPW Manager	In Progress	Х	
Sussex Boro-4 (old #4)	Armoring of Colesville Reservoir Dam located Brink Road	DPW Manager	In Progress	X	
Sussex Boro-5 (old #5)	Retrofit impact resistant windows and shutters on Sussex Fire Department building located on Loomis Avenue.	Station Commander	No Progress		
Sussex Boro-6 (old #6)	Retrofit impact resistant windows and shutters on Sussex Middle School located on Loomis Avenue	School Administration	No Progress		
Sussex Boro-7 (old #7)	Retrofit roof to meet current standards for snow load on original section of Sussex middle School located on Loomis Avenue.	School Administration	No Progress		
Sussex Boro-8 (old #8-10)	Ensure continuity of operations at critical facilities. The following were identified at this time: 1. Backup generator for shelter at Sussex Christian School located on Unionville Avenue 2. Backup generator for shelter at Emergency Operations Center located on Main Street. 3. Backup generator for shelter at Department of Public Works garage located on Brookside Avenue.	OEM Coordinator	In Progress; pursue generator for EOC and Borough Hall	x	2020-Borough of Sussex-001
Sussex Boro-9 (old #11)	Implement Fire Wise Program throughout the Borough.	OEM Coordinator	No Progress		
Sussex Boro- 10 (old #12)	Flood-proofing of the Sussex Boro Fire Company building.	Municipal Fire Chief	No Progress		
Sussex Boro- 11 (old #13)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	OEM Coordinator	Ongoing Capability		

Table 9.22-14.	<b>Status of Previous HMP</b>	Mitigation Actions
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			Status (In Progress, No		e in the 2021 P Update?
2016 Action	Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Sussex Boro- 12 (new)	Raise sewer pumps	DPW	No Progress	Х	2020-Borough of Sussex-003
Sussex Boro- 13 (new)	Sewer pumps and DPW garage floor	DPW Manager	No Progress	Х	2020-Borough of Sussex-003

In addition to the above progress, the Borough of Sussex 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 Sussex 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 Sussex 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 9.21-15 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Sussex 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 9.21-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





### Table 9.22-15. 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
2020- Borough of Sussex- 001	Backup Generator for Critical Facilities	<ul> <li>Problem: Backup power sources are necessary to maintain critical services for critical facilities. Borough Hall has no backup generator. It was not previously feasible to install until the Borough bought the lot next to the Borough Hall. In addition, the Firehouse is used as an Emergency Operations Center which leads to increased usage during a power outage.</li> <li>Solution: The Borough Engineer will research what size generator is needed to power the Borough Hall. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the Borough Hall.</li> <li>The Engineer will also review the generator in place at the Fire House to ensure that it has the capacity to support its use as an Emergency Operations Center. If the generator is lacking the capacity needed, the Borough will replace the generator.</li> <li>Public Works will be responsible for maintenance of generators.</li> </ul>	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter	1, 2, 3, 6	Engineer, Public Works	FEMA HMGP and BRIC, USDA Communit y Facilities Grant Program, Emergency Manageme nt Performanc e Grants (EMPG) Program, Municipal Budget	Ensure s continu ity of operati ons of critical faciliti es	\$50,0 00	Wi thi 5 ye ars	Hig h	SIP	ES
2020- Borough of Sussex- 002	Repetitive Loss Mitigation	<ul> <li>Problem: The Borough has one repetitive loss property. There may be additional properties with high flood risk. These properties require mitigation to prevent future losses and prevent loss of life and property damage.</li> <li>Solution: The Borough will conduct outreach to the RL property owner and property owners that have high flood risk and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to</li> </ul>	Existing	Flood, Severe Weather	1, 2	NFIP Floodplain Administrat or, supported by homeowner s	FEMA HMGP and FMA, BRIC, local cost share by residents	Elimin ates flood damag e to homes and residen ts, creates open space for the munici	\$200, 000	3 ye ars	Hig h	SIP	РР



# Section 9.22 – Borough of Sussex

Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution obtain funding to implement acquisition/purchase/moving/elevating	New or Existing Assets?	Hazard(s ) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		residential homes in the flood prone areas that experience frequent flooding (high risk areas).						ing flood storage					
2020- Borough of Sussex- 003	Raised Sewer Pumps at DPW	<ul> <li>Problem: The DPW Garage/Sewer Department is in floodplain of Papakating Creek. Flooding is a concern.</li> <li>Solution: The Borough will install and raise larger replacement sewer pumps along with an applicable sized backup generator and necessary electrical components.</li> </ul>	Existing	Flood, Severe Weather	2, 6	Public Works	HMGP, BRIC, Borough budget	Reduct ion in floodin g damag es, continu ity of operati ons	High	Wi thi 5 ye ars	Hig h	SIP	РР
2020- Borough of Sussex- 004	Increase Winter Storm Capabilities	Problem: The Borough has aging equipment and limited manpower for a long duration winter storm.         Solution: The Borough will work to secure funding for aging equipment and replace as necessary. The Borough will also explore shared services with other municipalities/county/state DPWs and establish agreements with private contractors for long duration storms.	N/A	Severe Winter Weather	5, 6	Administrat ion, DPW	Municipal budget	Increas ed winter storm capabil ities	Low	Wi thi 2 ye ars	Hig h	LPR	ES
2020- Borough of Sussex- 005	Streambank Stabilization	<ul> <li>Problem: Clove River Dam is a flood risk. The County route and local road run over the Clove Brook which if flooded would take out two bridges that separate the Firehouse from the rest of the town.</li> <li>Solution: The Borough will aim to reduce flood risk through stream bank stabilization surrounding confluence of Clove Brook and Papakating Creek.</li> </ul>	N/A	Dam Failure, Flood, Severe Weather	2,7	Administrat ion	HMGP, BRIC, Borough budget	Reduct ion in flood risk	\$75,0 00	Wi thi 5 ye ars	Hig h	NSP	NR
2020- Borough of Sussex- 006	Flood Damage Prevention Ordinance	Problem: The Borough's Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement. Solution: The Borough will adopt an updated version of the Flood Damage Prevention Ordinance which includes the state mandated freeboard requirement.	New and Existing	Flood	2	FPA, Administrat ion	Borough budget	Meetin g of state standar ds	Staff time	l ye ar	Hig h	LPR	PR



#### Section 9.22 – Borough of Sussex

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
2020- Borough of Sussex- 007	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.	Existing.	All Hazards	2, 3, 5, 6	OEM, DPW	Borough budget	Increas ed emerge ncy capabil	Staff time	l ye ar	Hig h	LPR	ES
2020	Update	<b>Problem:</b> The Borough's Emergency Operations Plan is due for update. The plan currently lacks information on hazard mitigation integration.						ities Increas ed hazard mitigat		Wi			
2020- Borough of Sussex- 008	Emergency Operations Plan to Include Mitigation Integration	<b>Solution:</b> The Borough will update the Emergency Operations Plan and increase the integration of hazard mitigation concepts and information derived from the HMP.	Existing	Existing All Hazards	1, 2, 3, 4, 5, 6	OEM	Borough budget	ion integra tion and emerge ncy capabil ities	Staff time	thi n l ye ar	Hig h	LPR	ES
2020- Borough of Sussex- 009	Dam Armoring	<b>Problem:</b> Lake Rutherford Dam (located in High Point State Park) and Colesville Reservoir Dam (located on Brink Road) require upgrades to reduce the change of dam failure. The areas the dams are located in have experienced flooding in the past, heightening the chance of dam failure.	Existing.	Dam Failure, Flood, Severe Weather	2, 7	DPW	HMGP, BRIC, FMA, High Hazard Potential Dam (HHPD)	Addres s long term risk of dam	High	2 ye ars	Hig h	SIP	PP, SP
	009	<b>Solution:</b> The DPW manager will complete in progress efforts to armor Lake Rutherford Dam and Colesville Reservoir Dam.		weather			(HHPD) Grant, Borough budget	failure					

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

#### Mitigation Category:

#### Potential FEMA HMA Funding Sources:

FMAFlood Mitigation AssistanceGrant ProgramHMGPHazard Mitigation Grant ProgramBRICBuilding Resilient Infrastructure and CommunitiesProgram

#### Timeline:

The time required for completion of the project upon implementation

#### Cost:

The estimated cost for implementation.

#### <u>Benefits:</u>

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



- 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.



Initiative Number	Mitigation Initiative Name	Life Safety	Property Protection	Cost Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2020- Borough of Sussex-001	Backup Generator for Critical Facilities	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2020- Borough of Sussex-002	Repetitive Loss Mitigation	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2020- Borough of Sussex-003	Raised Sewer Pumps at DPW	0	1	1	1	1	1	0	1	1	1	1	0	1	1	11	High
2020- Borough of Sussex-004	Increase Winter Storm Capabilities	1	1	1	1	1	1	1	1	1	1	1	0	1	1	13	High
2020- Borough of Sussex-005	Streambank Stabilization	0	1	1	1	1	0	0	1	1	1	1	0	1	1	10	High
2020- Borough of Sussex-006	Flood Damage Prevention Ordinance	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2020- Borough of Sussex-007	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2020- Borough of Sussex-008	Update Emergency Operations Plan to Include Mitigation Integration	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2020- Borough of Sussex-009	Dam Armoring	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High

Table 9.22-16. Summary of Evaluation and Action Priorities

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.



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

Table 9.22-17.	<b>Analysis of Mitigation</b>	Actions by Haza	ard and Category

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

<mark>RED</mark> high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard





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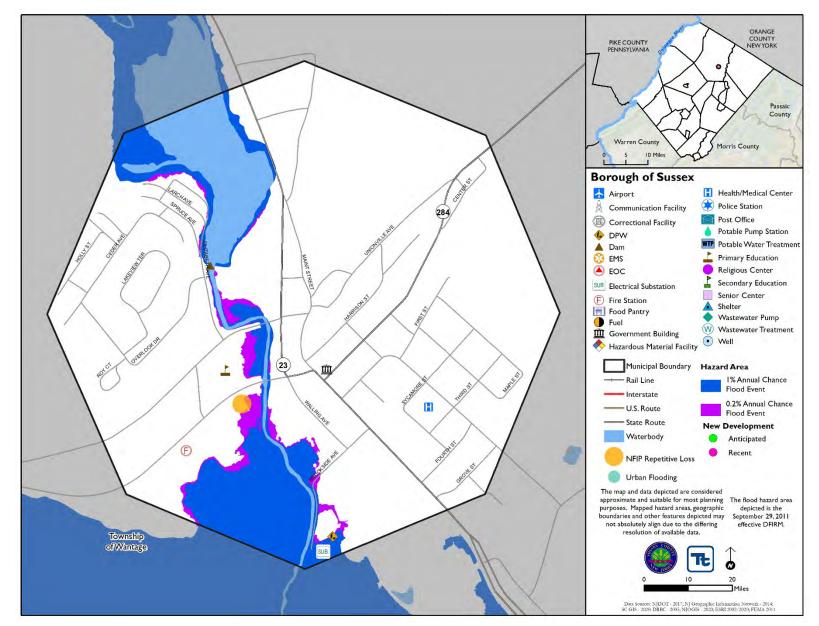


Figure 9.22-1. Borough of Sussex Hazard Area Extent and Location Map 1



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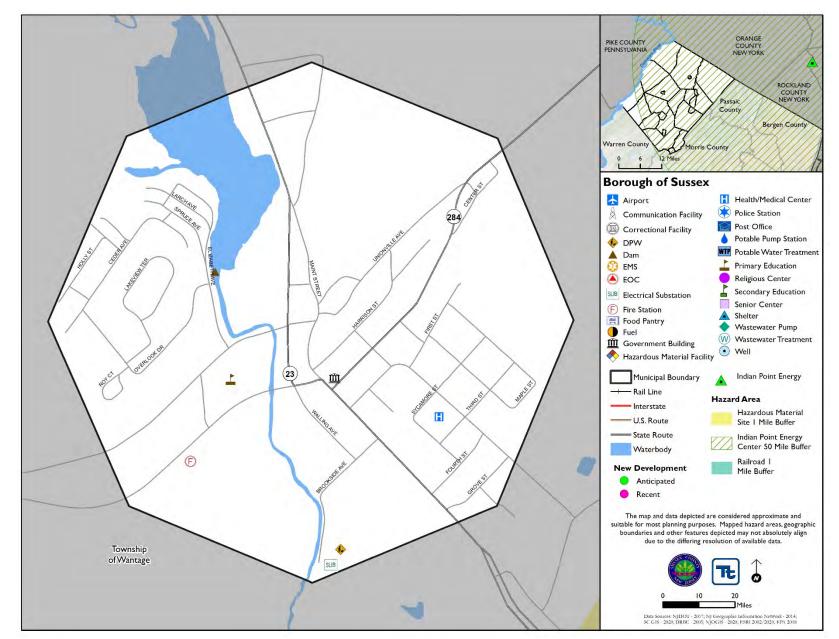
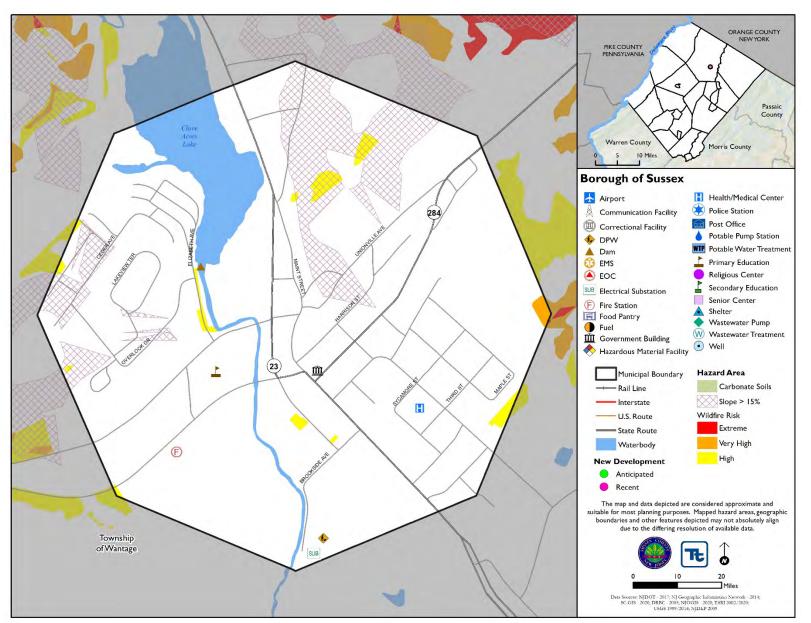


Figure 9.22-2. Borough of Sussex Hazard Area Extent and Location Map 2



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#### Figure 9.22-3 Borough of Sussex Hazard Area Extent and Location Map 3

	Action	Works	hoot							
Ducie et Neue	Action Machine Backup Generator for Critical									
Project Name:	-									
Project Number:	2020-Borough of Sussex-001									
	Risk / Vı									
Hazard(s) of Concern:	Severe Weather, Severe Wint									
Description of the Problem:	Borough Hall has no backup g Borough bought the lot next t	ackup power sources are necessary to maintain critical services for critical facilities. Forough Hall has no backup generator. It was not previously feasible to install until the borough bought the lot next to the Borough Hall. In addition, the Firehouse is used as an mergency Operations Center which leads to increased usage during a power outage.								
	Action or Project Intended for Implementation									
Description of the Solution:The Borough Engineer will research what size generator is needed to power the Borough Hall. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the Borough Hall.Description of the Solution:The Engineer will also review the generator in place at the Fire House to ensure that it has the capacity to support its use as an Emergency Operations Center. If the generator is lacking the capacity needed, the Borough will replace the generator with the correct sized generator.										
	Public Works will be respons			erators.						
Is this project related to a	Critical Facility? Yes	$\square$	No 🗌							
Level of Protection:	N/A		nated Benefits ses avoided):		Ensures continuity of operations of critical facilities					
Useful Life:	20 years	Goal	s Met:	1, 2, 3, 6						
Estimated Cost:	\$50,000		gation Action Type	Structure and Infrastructure Projects (SIP)						
	Plan for Im				Will 5					
Prioritization:	High		red Timeframe for ementation:		Within 5 years					
Estimated Time Required for Project Implementation:	1 year	Pote	ntial Funding Sour	rces:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget					
Responsible	Engineer, Public Works		l Planning Mechan	nisms	Hazard Mitigation,					
Organization:			Used in		Emergency Management					
	Three Alternatives Consi		ementation if any:							
	Action		stimated Cost		Evaluation					
	No Action		\$0		Problem continues.					
Alternatives:	Install solar panels		\$100,000	amo e	eather dependent; need large ount of space for installation; xpensive if repairs needed					
	Install wind turbine	Install wind turbine \$100,000 Weather dependent; poset to wildlife; expensive reneeded								
	Progress Report (f	or pla	n maintenance)							
Date of Status Report:										
Report of Progress:										
Update Evaluation of the Problem and/or Solution:										





	Acti	on Worksheet
Project Name:	Backup Generator for Cri	itical Facilities
Project Number:	2020-Borough of Sussex-	001
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of Borough Hall and Fire House
Property Protection	1	Project will protect buildings 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	Engineer, Public Works
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	

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	A	Action W	orkshee	t		
Project Name:	Repetitive Loss Mitig	ation				
Project Number:	2020-Borough of Sus	sex-002				
	Ri	isk / Vul	nerabili	ty		
Hazard(s) of Concern:	Flood, Severe Weathe	er, Hurric	ane, Nor'	easter, Climate Change	e and Sea Level Rise	
Description of the Problem:	The Borough has one repetitive loss property. There may be additional properties with high flood risk. These properties require mitigation to prevent future losses and prevent loss of life and property damage.					
	Action or Proje				1 1 1	
Description of the Solution:	high flood risk and pr measures are identifie grant application and acquisition/purchase/n experience frequent fl	ovide inf ed, collec BCA to o moving/e	ormation t required obtain fun levating r	on mitigation alternation property-owner inform ding to implement esidential homes in the	and property owners that have ves. After preferred mitigation nation and develop a FEMA e flood prone_areas that	
Is this project related to a C Lifeline?	Critical Facility or	Yes		No 🖂		
Level of Protection:	1% annual chance flood event + freeboard (in accordance with flood ordinance)		Estimated Benefits (losses avoided):		Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.	
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)		Goals Met:		1, 2	
Estimated Cost:	\$200,000		Mitigation Action Type:		Structure and Infrastructure Project	
	Plan	for Imp	lementa			
Prioritization:	High Desired Timeframe for Implementation:		6-12 months			
Estimated Time Required for Project Implementation:	Three years		Potential Funding Sources:		FEMA HMGP and FMA, BRIC, local cost share by residents	
Responsible Organization:	NFIP Floodplain Administrator, suppor homeowners	-	Local Planning Mechanisms to be Used in Implementation if any:		Hazard Mitigation	
	Three Alternatives	s Consid			<b>P 1</b>	
	Action		E:	stimated Cost \$0	Evaluation Current problem continues	
Alternatives:	No Action Elevate homes		\$200,000		When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads	
	Elevate roads \$200,000		Elevated roadways would not protect the homes from flood damages			
	Progress Re	port (fo	r plan m	aintenance)		
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						







Action Worksheet						
Project Name:	Repetitive Loss Mitigatio	Repetitive Loss Mitigation				
Project Number:	2020-Borough of Sussex-002					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	1	Families moved out of high-risk flood areas.				
Property Protection	1	Properties removed from high-risk flood areas.				
Cost-Effectiveness	1	Cost-effective project				
Technical	1	Technically feasible project				
Political	1					
Legal	1	The Borough has the legal authority to conduct the project.				
Fiscal	0	Project will require grant funding.				
Environmental	1					
Social	0	Project would remove families from the flood prone areas of the Borough.				
Administrative	0					
Multi-Hazard	1	Flood, Severe Weather, Hurricane, Nor'easter, Climate Change and Sea Level Rise, Severe Weather				
Timeline	0					
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners				
Other Community Objectives	1					
Total	10					
Priority (High/Med/Low)	High					



		Action V	Vorks	heet			
Project Name:	Raised Sewer Pump	Raised Sewer Pumps at DPW					
Project Number:	2020-Borough of St	2020-Borough of Sussex-003					
	I	Risk / Vı	ılnera	bility			
Hazard(s) of Concern:	Flood, Severe Weat			5			
Description of the Problem:	The DPW Garage/S concern.	The DPW Garage/Sewer Department is in floodplain of Papakating Creek. Flooding is a concern.					
				or Implementation			
Description of the Solution:The Borough will install and raise larger replacement sewer pumps along with an appropriately sized backup generator and necessary electrical components. The pumps will be protected to the 500-year flood level.							
Is this project related to a	Critical Facility?	Yes	$\boxtimes$	No 🗌			
Level of Protection:	500-year flood	year flood level Estimated Benefits (losses avoided):		Reduction in flooding damages, continuity of operations			
Useful Life:	50 years		Goal	s Met:	2, 6		
Estimated Cost:	High		Mitigation Action Type:		Structure and Infrastructure Project		
	Pla	an for Im	pleme	entation			
Prioritization:	High			red Timeframe for ementation:	Within 5 years		
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		HMGP, BRIC, Borough budget		
Responsible Organization:	Public Works		Local Planning Mechanisms to be Used in Implementation if any:		Hazard mitigation		
	Three Alternativ	es Consi		(including No Action)			
	Action		Estimated Cost		Evaluation		
	No Action			\$0	Problem continues.		
Alternatives:	Raise roadways in	the area		\$250,000	Flooding likely to impact property owners		
	Elevate homes in the area		\$3 million		Costly and roadways still flood		
	Progress I	Repo <u>rt (f</u>	or plai	n maintenance)			
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





Evaluation and Prioritization						
Project Name:	Raised Sewer Pumps at I	Raised Sewer Pumps at DPW				
Project Number:	2020-Borough of Sussex-003					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	0					
Property Protection	1	Project will protect sewer pumps from flooding				
Cost-Effectiveness	1					
Technical	1	The project is technically feasible				
Political	1					
Legal	1	The Borough is legally able to complete the project				
Fiscal	0 Project requires funding support					
Environmental	1					
Social	1					
Administrative	1					
Multi-Hazard	1	Flood, Severe Weather				
Timeline	0	Within 5 years				
Agency Champion	1	Public Works				
Other Community Objectives	1					
Total	11					
Priority (High/Med/Low)	High					





	Action	Worksheet					
Project Name:	Streambank Stabilization						
Project Number:	2020-Borough of Sussex-005	2020-Borough of Sussex-005					
	Risk / Vu	ılnerability					
Hazard(s) of Concern:	Flood, Landslide						
Description of the Problem:		Clove River Dam is a flood risk. The County route and local road run over the Clove Brook which if flooded would take out two bridges that separate the Firehouse from the rest of the town.					
	Action or Project Inter	nded for Implementation					
Description of the Solution:	The Borough will aim to reduce flood risk through stream bank stabilization surrounding confluence of Clove Brook and Papakating Creek.						
Is this project related to a	Critical Facility? Yes						
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Landslide and flood risk reduced				
Useful Life:	1 year	Goals Met:	2, 7				
Estimated Cost:	\$75,000	Mitigation Action Type:	Natural Systems Protection				
	Plan for Im	plementation					
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years				
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	HMGP, BRIC, Borough budget				
Responsible Organization:	Administration	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation				
	Three Alternatives Consi	dered (including No Action)					
	Action	Estimated Cost	Evaluation				
	No Action	\$0	Problem continues.				
Alternatives:	Retreat from areas near stream	High	Costly, unpopular				
	Levees along stream	High	Not feasible/environmentally damaging, costly				
	Progress Report (f	or plan maintenance)					
Date of Status Report:							
Report of Progress:							
Update Evaluation of the Problem and/or Solution:							





Action Worksheet						
Project Name:	Streambank Stabilization					
Project Number:	2020-Borough of Sussex-005					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate				
Life Safety	0					
Property Protection	1	Project will protect properties from potential flood damage				
Cost-Effectiveness	1					
Technical	1					
Political	1					
Legal	0	Permitting likely required				
Fiscal	0 Project requires funding support					
Environmental	1					
Social	1					
Administrative	1					
Multi-Hazard	1	Dam Failure, Flood, Severe Weather				
Timeline	0					
Agency Champion	1	Administration				
Other Community Objectives	1	Restore natural floodplain function				
Total	10					
Priority (High/Med/Low)	High					





	A	ction W	orkshee	t		
Project Name:	Dam Armoring	Dam Armoring				
Project Number:	2020-Borough of Sus	ssex-009	)			
	Ri	sk / Vul	nerabilit	ty		
Hazard(s) of Concern:	Dam Failure, Flood, S	Severe W	/eather			
Description of the Problem:	(located on Brink Ro the dams are located dam failure.	Lake Rutherford Dam (located in High Point State Park) and Colesville Reservoir Dam (located on Brink Road) require upgrades to reduce the change of dam failure. The areas the dams are located in have experienced flooding in the past, heightening the chance of dam failure. Action or Project Intended for Implementation				
Description of the Solution:	The DPW manager will complete in progress efforts to armor Lake Rutherford Dam and Colesville Reservoir Dam.					
Is this project related to a C Lifeline?	Critical Facility or	Yes	$\boxtimes$	No 🗌		
Level of Protection:	500-year flood			ted Benefits avoided):	Address long term risk of dam failure	
Useful Life:	50 years		Goals Met:		2, 7	
Estimated Cost:	High		Mitigation Action Type:		Structure and Infrastructure Project	
	Plan	for Imp	lementa			
Prioritization:	High			d Timeframe for nentation:	2 years	
Estimated Time Required for Project Implementation:	2 years		Potential Funding Sources:		HMGP, BRIC, FMA, High Hazard Potential Dam (HHPD) Grant, Borough budget	
Responsible Organization:	DPW		Local Planning Mechanisms to be Used in Implementation if any:		Hazard Mitigation Planning	
	Three Alternatives	s Consid			1	
	Action		Es	stimated Cost	Evaluation	
Alternatives:	No Action Buyout properti downstream	ies	\$0 High		Current problem continues High cost, high social impacts	
	Remove Dam		High		Dams cannot be removed for safety reasons and water supply	
	Progress Re	port (fo	r plan ma	aintenance)		
Date of Status Report:						
Report of Progress:						
Update Evaluation of the Problem and/or Solution:						





Action Worksheet							
Project Name:	Dam Armoring	Dam Armoring					
Project Number:	2020-Borough of Sussex	2020-Borough of Sussex-009					
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate					
Life Safety	1	Project protects life from dam failure					
Property Protection	1	Project protects property from dam failure					
Cost-Effectiveness	1						
Technical	1						
Political	1	There is public support for the project					
Legal	1	The Borough has the legal authority to complete the project					
Fiscal	0	The project requires funding support					
Environmental	1						
Social	1						
Administrative	1						
Multi-Hazard	1	Dam Failure, Flood					
Timeline	1	1					
Agency Champion	1	DPW					
Other Community Objectives	1						
Total	13						
Priority (High/Med/Low)	High						

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# 9.23 TOWNSHIP OF VERNON

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

# 9.23.1 Hazard Mitigation Planning Team

The Township of Vernon 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).

Primar	y Point of Contact	Alternate Point of Contact			
Name / Title: Ken Clark, OEM Coordinator Address: 21 Church Street, Vernon, NJ 07462 Phone Number: (973) 600-7612 Email: kenclark213@gmail.com		Name / Title: Dan Young, Deputy OEM Coordinator/Police Chief Address: 21 Church Street, Vernon, NJ 07462 Phone Number: 973-764-6155 Email: dyoung43@vernonpolice.com			
NFIP Floodplain Adm					
Name / Title: Robert W Address: 21 Church Str Phone Number: (973) 7 Email: rwestenberger@	764-4055				
Name	Title	Method of Participation			
Ken Clark	OEM Coordinator	Provided data and information for the annex update; contributed to the mitigation strategy; attended the kickoff meeting, annex training, risk assessment meeting and mitigation strategy workshop, reviewed annex*			
Dan Young	Dep OEM Coordinator Police Chief	Attended the annex training, risk assessment meeting and mitigation strategy workshop			
Howard L Burrell	Mayor	Reviewed annex*			
Donelle DeCouto	Chief Financial Officer	Reviewed annex*			
Robert Westenberger	Construction Official	NFIP floodplain administrator, reviewed annex*			
Ed Babcock	Director of Department of Public Works	Reviewed annex*			
Daniel B. Young	Chief of Police	Reviewed annex*			
Thomas Van Le	Chief of PV Fire Department	Reviewed annex*			

### Table 9.23-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.





# 9.23.2 Jurisdiction Profile

Vernon Township is located in the northeast corner of Sussex County. It has a total area of 70.6 square miles. The Township is most populous municipalities and has the largest area in the county. It is bordered to the north by New York State, to the south by Hardyston Township, to the east by Passaic County, and to the west by Wantage Township. The following unincorporated communities are located within the Township: Owens, Willow Brook, Wantage, Independence Corner, McAfee, Sand Hills, Glenwood, Vernon Valley, DeKays, Highlands Lakes, Kampe, Cherry Ridge, and Wawayanda. There are many ponds and streams located throughout the Township and include, but not limited to: Highland Lake, Wawayanda Lake, Lake Wildwood, Double Kill, Wawayanda Creek, Pochuck Creek and its tributaries, Black Creek and its tributaries, and the Wallkill River.

According to the U.S. Census, the 2010 population for the Township of Vernon was 23,943. The estimated 2018 population was 21,989, an 8.16 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 4.4 percent of the population is 5 years of age or younger and 13.7 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.

# 9.23.3 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 9.22-2 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.

Type of Development	2	015	2016		2017		2018		2019	
ľ	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	7	0	5	0	7	0	8	0	3	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	1	0	0	0	0	0	0	0	0	0
Property or Development Name		Type ofLocationDescription /of# of Units / (address and/orKnown HazardStatus ofDevelopmentStructuresblock and lot)Zone(s)*Development					itus of Ó			
	<b>Recent Major Development and Infrastructure from 2015 to Present</b>									
No major developments constructed.										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
No major developments anticipated.										

#### Table 9.23-2. Recent and Expected Future Development

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

SFHA = Special Flood Hazard Area





# 9.23.4 Capability Assessment

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

		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Codes, Ordinances, & Requirements						
Building Code	Yes	State & Local	Yes	Yes	-	
The Construction Department is respons     52:27D-119 et seq.).  Zoning Code			Yes – if municipality		. (14.0.0.	
Zoning Code	Yes	Local		Yes		
Loning court		2000	Planning Board			
<ul> <li>Comment:         <ul> <li>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.</li> <li>The Land Use Department and Engineering Department are responsible for this code in compliance with Code Chapter 330.</li> </ul> </li> </ul>						
Subdivisions	Yes	Local	Yes – if municipality has a	Yes	-	

Table 9.23-3	. Planning, Legal and Regulatory Capability
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Do you have this?(Federal, State, Regional, County, Local)Is thisIf yes-how?Mitigation Action #(Yes/No)Local)Mandated?comments.applicable	Authority that			been integra	s of the HMP ited into your ances/plans?
Diamine	this?	(Federal, State, Regional, County,	State	Describe in	If no - add Mitigation Action #, if applicable.
Board			Planning Board		

- - 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

Stormwater Management	Yes	Local	Yes	Yes	-		
Comment: <ul> <li>See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8</li> <li>This ordinance follows Code Chapter 330-Article XII.</li> </ul>							
Post-Disaster Recovery	No	-	No	-	-		
Comment:							
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-		
Comment:							

N.J.A.C. 13:45A-29.1 - Before signing a contract of sale, all purchasers must receive a New Jersey Public Offering Statement (POS) approved by the New Jersev 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	No	-	Yes – if municipality has a Planning Board	-	-
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- Comment:
  - 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.

Comment:

- 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 Department and Engineering Department are responsible for these requirements in compliance with Code Chapter 333-Article VI.

Environmental Protection	Yes	Regional/Local	No	No	-
Comment:					





		Authority that		been integra	s of the HMP ted into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
• Vernon Township is located in both the ordinances reflect initiatives to protect to					ing and zoning
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	2021-Vernon- 004
<ul> <li>The NJ State Law Flood Area Control A federal acts to support minimization of J floodplain ordinances of each municipa the NFIP requires a floodplain ordinance effective June 20, 2016.</li> <li>The Construction Official is responsible</li> <li>The ordinance lacks the state's one-foot</li> <li>Wellhead Protection</li> </ul>	lood losses. They lity must be review ce. Regulations for for this ordinance	do not require local add ed for compliance with the Flood Control Haz in compliance with Co	option but as enj these regulation zards Act were a de Chapter 275.	forced by the NJE as. In addition, pa dopted in 2007 at	DEP, the articipation in
Comment: • Vernon Township has several well head		The identification of we	llhead protectio	n areas are requi	red as part of
permit applications in the Highlands Pr Emergency Management	No	-	No	-	-
Comment: Climate Change	No	_	No	-	_
Comment:	110		110		
Disaster Recovery Ordinance	No	_	No	_	
·	NO	-	INU	-	-
Comment:	N		) Y		
Disaster Reconstruction Ordinance	No	-	No	-	-
Comment: Other [Special Purpose Ordinances (i.e.,					
sensitive areas, steep slope)]	Yes	Local	No	Yes	-
Comment: • The Land Use Department and Engineer 330-Article XII and slopes, environment	0 1		ordinances in c	ompliance with C	ode Chapter
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
<ul> <li>2018 Revised NJ Statute 40:27-2; the control the county. The master plan of a county, show the county planning board's reconting among other things, the general location developments, parkways, playgrounds, J the general location and extent of forest water supply, sanitary and drainage fact important to the development of the count municipalities within the county in any radvise the board of chosen commissioned expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be a The Land Use Department and Engineer Update.</li> </ul>	with the accompa- mendations for the n, character, and e- forests, reservation s, agricultural area- cilities, or the prote- nty. The county pla- natters whatsoever rs with respect to Land Use Law (M and requires that consistent with the ring Department a	nying maps, plats, char e development of the te extent of streets or road as, parks, airports, and as, and open-develop inning board shall enco which may concern the the formulation of deven (LUL) L. 1975, s. 2, eff- each municipality prepo- Master Plan or will no- re responsible for this p	ts, and descripti rritory covered s, viaducts, brid other public wa ent areas for pu ment, and such urage the co-op e integrity of the lopment progran Aug 1, 1976 40: are a master pla t be benefitted fr olan in complian	ve and explanator by the plan, and n ges, waterway an vs, grounds, place rposes of conserv other features as eration of the loce county master pl ns and budgets for 55D-28 provides n and update it ev om a presumption ce with the 2010.	y matter, shall nay include, nd waterfront es and spaces; ation, food and may be al an and to or capital the required very 6 years. 1 of validity.
Capital Improvement Plan	Yes	Local	No	No	-
<i>Comment:</i> • The Administrator is responsible for this	s plan				
Disaster Debris Management Plan	Yes	State & Local	No	V	
Disaster Debris Management Fian	105	State & Local	INO	Yes	-



Stre mark					
		Authority that		been integra	s of the HMP ited into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable
Floodplain or Watershed Plan	Yes	County & Local	No	Yes	-
Comment:			<i>CI</i> <b>275 2</b>		
The Engineering Department is re Stormwater Management Plan	<u>esponsible for this plan in</u> Yes	n compliance with Code Local	Yes	.4. Yes	
Comment:	I es	Local	i es	Tes	-
<ul> <li>design and performance standard, include groundwater recharge, ru consideration, the use of nonstruc impervious surfaces, minimizing to requirements for groundwater rec of major development to be locate without prior authorization from t</li> <li>The Land Use Department and En-</li> </ul>	noff quantity controls, a tural stormwater manag he use of stormwater pip harge, stormwater runoj d within or to discharge he Department under the	nd runoff quality contro ement techniques includ es, preserving natural d ff quantity control, storr runoff from the major d e Flood Hazard Area Co	ls. The rules em ling minimizing trainage feature nwater runoff qu levelopment into ontrol Act Rules	phasize, as a prin disturbance, minu es, etc. The rules a uality control, and o a 300-foot ripar s, N.J.A.C. 7:13.	nary imizing Ilso set forth I the prohibitio ian zone
Article XII.			-		-
Stormwater Pollution Prevention Plan Comment:	Yes	Local	Yes	No	-
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Comment:



		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?			
	<b>Do you have</b> <b>this?</b> (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.		
Climate Action Plan	No	-	No	-	-		
Comment:							
Tourism Plan	No	-	No	-	-		
Comment:							
Business Development Plan	No	-	No	-	-		
Comment:							
Other: Open Space Plan	Yes	Local	No	No	-		
The Land Use Department and the Plant     Part 2 of the Master Plan includes Park Response/Recovery Planning							
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-		
<ul> <li>Comment:         <ul> <li>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.</li> <li>The Office of Emergency Management Coordinator is responsible for this plan in compliance with the Emergency Operations Plan.</li> </ul> </li> </ul>							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Local	No	Yes	-		
Comment:							
Post-Disaster Recovery Plan	No	-	No	-	-		
Comment:							
Continuity of Operations Plan	Yes	Local	No	Yes	-		
Comment:							
Public Health Plan	No	_	No	-	-		
Comment:							
Other:	No	-	No	-	-		

# Table 9.23-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes; Building Department and Planning/Zoning
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.	Yes

#### **ADMINISTRATIVE AND TECHNICAL CAPABILITY**

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





Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Vernon Township Land Use Board
Mitigation Planning Committee	No	-
Environmental Board / Commission	Yes	Vernon Township Environmental Commission
Open Space Board / Committee	No	-
Economic Development Commission / Committee	Yes	Vernon Township Economic Development Advisory Committee
Warning Systems / Services (reverse 911, outdoor warning signals)	No	-
Maintenance program to reduce risk	No	-
Mutual aid agreements	Yes	Neighboring communities, County
Technical/Staffing Capability	-	
Planners or engineers with knowledge of land development and land management practices	Yes	Engineer/Planner
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineer
Planners or engineers with an understanding of natural hazards	Yes	Engineer
Staff with training in benefit/cost analysis	No	-
Staff with training in green infrastructure	Yes	Engineer/Planner
Staff with education/knowledge/training in low impact development	Yes	Engineer/Planner
Surveyor	No	-
Stormwater engineer	Yes	Cory Stoner (Harold Pellow & Associates)
Personnel skilled or trained in GIS applications	No	-
Local or state water quality professional	No	-
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	Ken Clark, Emergency Management Coordinator
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	No	-
Resilience Officer	No	-

### Table 9.23-5. Administrative and Technical Capabilities

#### FISCAL CAPABILITY

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

#### Table 9.23-6. 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	Sewer only
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No





Financial Resource	Accessible or Eligible to Use?
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
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 Vernon.

#### Table 9.23-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	No
Do you have personnel skilled or trained in website development?	Yes- individual contractor
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	OEM Facebook page—daily weather
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes- OEM Facebook page
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.	No

#### **COMMUNITY CLASSIFICATIONS**

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

### Table 9.23-8. 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	5x	Update to 3y
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	Yes	Bronze	November 3, 2017

#### 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.



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

### Table 9.23-9. Adaptive Capacity

Notes:

Strong = Capacity exists and is in use; Moderate = Capacity may exist, but is not used or could use some improvement;

Weak = Capacity does not exist or could use substantial improvement; Unsure = Not enough information is known to assign a rating.

#### NATIONAL FLOOD INSURANCE PROGRAM

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

### Table 9.23-10. National Flood Insurance Program Compliance

Criterion	Response		
What local department is responsible for floodplain management?	Building Department		
Who is your floodplain administrator? (name, department/position)	Construction Official (contracted service to Harold Pellow & Associates)		
Are any certified floodplain managers on staff in your jurisdiction?	No		
What is the date that your flood damage prevention ordinance was last amended?	September 12, 2011		
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.		
When was the most recent Community Assistance Visit or Community Assistance Contact?	July 27, 1994		
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?	No		





Response
No
26 policies \$7,779,200 insurance in force \$37,242 premium in force
18 claims \$119,012 in payments
No
No

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

#### ADDITIONAL AREAS OF EXISTING INTEGRATION

- The Division of Planning and Zoning and the Township's Land Use Board consider the Hazard Mitigation Plan and the information contained therein and will use the plan when updating the Township's Master Plan.
- The Township has taken steps to ensure the continuity of operations of municipal operations and infrastructure.

## 9.23.5 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 Vernon'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 9.22-11 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.

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 <sup>rd</sup> and 24th.	Excessive clean-up costs
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.	Excessive unbudgeted costs for PPE to Emergency Services. Tax revenue down and municipal center closed 5 weeks
Tropical Storm Isais (8/4/20)	DR-4574-NJ	Yes	A major tropical storm produced excessive winds and storm damage August 4, 2020	Clean up costs in excess of \$120,000.00



Date(s) of Event	Event Type (disaster declaration if applicable)	Sussex County Designated?	Summary of Event	Summary of Local Damages and Losses
Jan 31-Feb 2, 2021	Severe Winter Storm	No	A major winter snow event that dropped 30+ inches of snow in blizzard conditions.	Clean up Costs in excess of \$100,000.00
March 2021	Sinkhole	No	A relatively small sinkhole formed as a result of heavy rain, snow melt and lake run off at National Winter Activity Center. It was approximately 30" x 24" a 6' deep that connected to a spill way basin that ties into a stream.	The sinkhole was kept under watch and is being remediated with the dam replacement project (2021-Vernon-005).

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

# 9.23.6 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 Vernon 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 Vernon 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 Vernon has significant exposure.

### **REPETITIVE FLOOD LOSSES**

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

- Number of repetitive loss (RL) properties: 2
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

\*According to FEMA statistics as of October 13, 2020

### **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.

		Exposure	
Name	Туре	1% Event	0.2% Event
Dorothy Henry Library Branch	Shelter	Х	Х
Canistear Reservoir #2 Dam	Dam	Х	Х
Lake Wanda Dam	Dam	Х	Х

#### Table 9.23-12. Critical Facilities and Lifelines Flood Exposure





		Exposure	
Name	Туре	1% Event	0.2% Event
Kohout Lake Dam	Dam	Х	Х
Hickory Park Dam	Dam	Х	Х

Source: Sussex County Planning Partnership 2020 Note:

\*Identified lifeline

#### IDENTIFIED ISSUES AND PROBLEM AREAS

The Township identified the following issues and problem areas:

- During the current COVID-19 pandemic, the Township did not have an adequate supply of personal protective equipment (PPE) for municipal staff. Without proper PPE, it puts municipal staff and residents at risk to the spread of infectious diseases.
- Vernon experiences frequent storm damage from downed trees. The Township's roads are surrounded by vegetation over-growth throughout the Township's 68 square miles. County Route 515, one of the Township's busiest roads, is particularly impacted by downed trees. The Township has identified that 14 miles of vegetation management is needed to reduce impacts from trees to utility and vehicle right-of-ways. During storm events, delays of up to six hours are reported due to trees in the road.
- The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township is currently not part of the Firewise program.
- The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meet New Jersey's minimum requirement.
- A relatively small sinkhole formed as a result of heavy rain, snow melt and lake run off at National Winter Activity Center. It was approximately 30" x 24" a 6' deep that connected to a dam spill way basin that ties into a stream. The dam requires replacement.

### 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 Vernon 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 Vernon. The Township of Vernon 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 Vernon indicated the following reasons why hazard rankings have changed since the 2016 HMP:

• Geologic hazards were reduced to a "Medium" rank from "high" due to low event frequency and impact.





Dam Failure	Disease Outbre	ak Drough	t	Earthqua	ake		Flood	Geologic
Medium	Medium	Medium	Low		Medium		Medium	
Hurricane Severe								
Hazardous Materials	and Tropical Storm	Invasive Species	N	or'Easter		ere ther	Winter Weather	Wildfire
Medium	High	Medium		High	Hi	gh	High	Medium

#### Table 9.23-13. Township of Vernon Hazard Ranking

## 9.23.7 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 9.22-15 and Table 9.22-16 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.

			Status (In Progress, No		the 2021 HMP odate?
201	.6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Vernon- 1 (new)	Utilize the Hazard Mitigation Plan (HMP) when updating the Comprehensive Master Plan; consider including hazard identification, hazard zones risk assessment information, and hazard mitigation goals as identified in the HMP. Further, the findings and recommendation of the HMP will be considered during any future site plan review processes.	Planning	Ongoing Capability		
Vernon- 2 (old #2)	When replacing the roof of the Vernon Valley Police Department building on Church Street, ensure that it meets the current snow load standards.	Police Chief	Completed		
Vernon- 3 (old #3)	When replacing the roof of the Lounsberry Hollow School building on Sammis Road, ensure that it meets the current snow load standards.	School Board Administrator	Completed		

### Table 9.23-14. Status of Previous HMP Mitigation Actions





			Status (In Progress, No		the 2021 HMP pdate?
201	6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Vernon- 4 (old #4)	When replacing the roof of the High School building on Route 565, ensure that it meets the current snow load standards.	School Board Administrator	Completed		
Vernon- 5 (old #5)	Implement the Fire Wise Program throughout the township.	OEM Coordinator	No Progress	X	2021- VernonTwp- 003
Vernon- 6 (old #6)	When replacing the roof of the Glen Meadows School building on Sammis Road, ensure that it meets the current snow load standards.	School Board Administrator	Completed		
Vernon- 7 (old #7)	When replacing the roof of the Cedar Mountain School building on Sammis Road, ensure that it meets the current snow load standards.	School Board Administrator	Completed		
Vernon- 8 (old #8)	When replacing the roof of the Rolling Hill School building on Sammis Road, ensure that it meets the current snow load standards.	School Board Administrator	Completed		
Vernon- 9 (old #9)	When replacing the roof of the Walnut Ridge School building on Route 517, ensure that it meets the current snow load standards.	School Board Administrator	Completed		
Vernon- 10 (old #10)	Stormwater management system upgrade and improvement along Maple Grange Road and Vernon Crossing Road.	DPW	Completed		
Vernon- 11 (old #12)	Stormwater management system along Tenneco Pipeline.	DPW	Completed		
Vernon- 12 (old #13)	Harden SES Americom building located on route 517 and Edsel Drive to FEMA 361 Standards.	Facility Administrator	No Progress		
Vernon- 13 (old #14)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness. This will include providing better information regarding hazard risks and high-hazard areas in the Township.	OEM Coordinator in coordination with County OEM	Ongoing Capability		
Vernon- 14 (new)	Ensure continuity of operations at critical facilities, municipal buildings, and infrastructure. At this time, the following was identified: Develop an action	Township with support from utility providers	Ongoing Capability		





2016 Action Number Action Description	ı Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	 the 2021 HMP odate? Enter 2021 HMP Action #
plan to improve the dama resistance of utilities (electricity, communicati throughout the Township	ons)		

#### **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Township of Vernon 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 Vernon 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 9.22-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Vernon 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 9.22-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





#### Table 9.23-15. 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-		<b>Problem</b> : During the current COVID-19 pandemic, the Township did not have an adequate supply of personal protective equipment (PPE) for municipal staff. Without proper PPE, it puts municipal staff and residents at risk to the spread of infectious diseases.		D.	1, 2,	Township	BRIC, NJDCA, Township Budget,	Increas e protect ion from	\$75.0	Wi thi	Hig		DD
2021- PPE - Vernon- Acquisition/Pan 001 demic Response	<b>Solution:</b> The Township will purchase PPE to create a stockpile for municipal staff. This will include gloves, masks, gowns, antibacterial handwash, antiviral cleaning solutions, sanitizers, and misters. This equipment can be used for the COVID-19 pandemic response as well as future infectious disease outbreaks, such as pandemic influenza.	N/A	Disease Outbreak	3, 6	OEM	FEMA Assistance to Firefighters Grant	disease s; decreas e risk of spread	\$75,0 00	n 2 ye ars	h	LPR	PR, ES	
2021- Vernon 002	Vegetation Management Planning and Implementation	<ul> <li>Problem: Vernon experiences frequent storm damage from downed trees. The Township's roads are surrounded by vegetation over-growth throughout the Township's 68 square miles. County Route 515, one of the Township's busiest roads, is particularly impacted by downed trees. The Township has identified that 14 miles of vegetation management is needed to reduce impacts from trees to utility and vehicle right-of-ways. During storm events, delays of up to six hours are reported due to trees in the road.</li> <li>Solution: The Township proposes to develop a proactive vegetation management plan and contract with a vegetation management company to prioritize vegetation removal, implement best practices, and cutback overgrown and dead vegetation to reduce impacts of downed trees. Funding will be sought to hire a contract to remove high hazard</li> </ul>	New	Hurricane and Tropical Storm; Nor'easter; Severe Storm; Severe Winter Storm; Wildfire	1, 2, 3, 6	Sussex County; Vernon Township DPW	BRIC; HMGP; Township Funds;	Enhanc ed utility of roads and decreas ed freque ncy of power outage followi ng hazard events	\$2 millio n	Wi thi n thr ee ye ars	Hig h	LPR	PR, ES





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- Firewise Vernon- Program		<b>Problem</b> : The national Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township is currently not part of the Firewise program.	Both	Wildfire	1, 2, 3, 4, 5	Township OEM and Fire	Township Budget, Staff Time	Helps Towns hip identif y wildfir e safety efforts:	\$10,0 00+	Wi thi 5	Hig h	LPR, EAP	PI, ES
	Participation Solution: The Townshi proper steps in applying becoming a Firewise co includes forming a boar obtaining a wildfire risk developing an action pla outreach events and pro	<b>Solution:</b> The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The application will be completed online.				Department		access to fundin g and assista nce		ye ars			
2021- Vernon- 004	Update Flood Damage Prevention Ordinance	<ul> <li>Problem: The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meeting New Jersey's minimum requirement.</li> <li>Solution: The Township will update its flood damage prevention ordinance to</li> </ul>	New and Existing	Flood	1, 2	Township Administrat ion, Constructio n Official	Township budget	Meet state standar ds, reduce future flood risk	Staff time	6 m on ths	Hig h	LPR	PR
2021- Vernon- 005	National Winter Activity Center Dam Replacement	<ul> <li>meet the New Jersey requirement of one foot of freeboard.</li> <li>Problem: A relatively small sinkhole formed as a result of heavy rain, snow melt and lake run off at National Winter Activity Center. It was approximately 30" x 24" a 6' deep that connected to a dam spill way basin that ties into a stream. The dam requires replacement.</li> <li>Solution: The National Winter Activity Center will carry out replacement of the dam.</li> </ul>	Existing	Dam Failure, Geologic	2,7	National Winter Activity Center	National Winter Activity Center	Sinkho le mitigat ed, dam safety improv ed	Mode rate	l ye ar	Hig h	SIP	SP

Notes:

Acronyms and Abbreviations:

Potential FEMA HMA Funding Sources:

CAV Community Assistance Visit

CRS Community Rating System

BRICBuilding Resilient Infrastructure and CommunitiesFMAFlood Mitigation Assistance Grant Program

#### Timeline:

The time required for completion of the project upon implementation



- 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

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.

Hazard Mitigation Grant Program

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

HMGP

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.



<u>Cost:</u>

The estimated cost for implementation.

#### Benefits:

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



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- Vernon- 001	PPE Acquisition/Pandemic Response	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2021- Vernon- 002	Vegetation Management Planning and Implementation	1	1	1	1	1	1	0	0	1	1	1	1	1	1	12	High
2021- Vernon- 003	Firewise Program Participation	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Vernon- 004	Update Flood Damage Prevention Ordinance	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021- Vernon- 005	National Winter Activity Center Dam Replacement	0	1	1	1	1	0	1	1	1	1	1	1	1	1	12	High

Table 9.23-16. Summary of Evaluation and Action Priorities

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



005

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.





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

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

high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



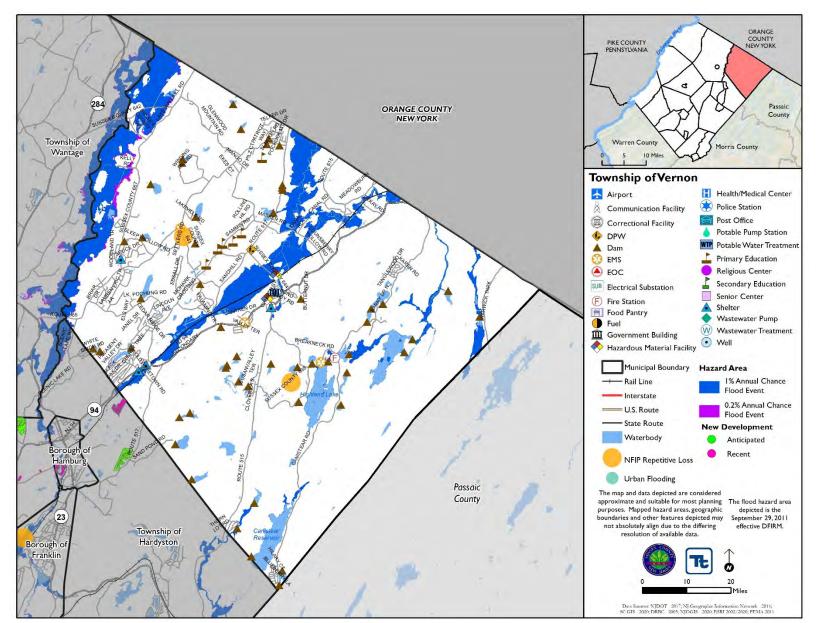


Figure 9.23-1. Township of Vernon Hazard Area Extent and Location Map 1



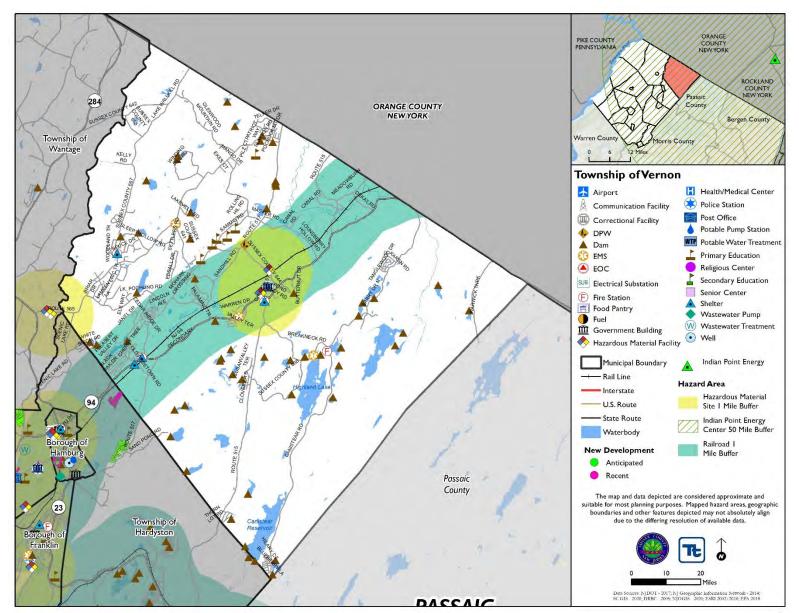


Figure 9.23-2. Township of Vernon Hazard Area Extent and Location Map 2



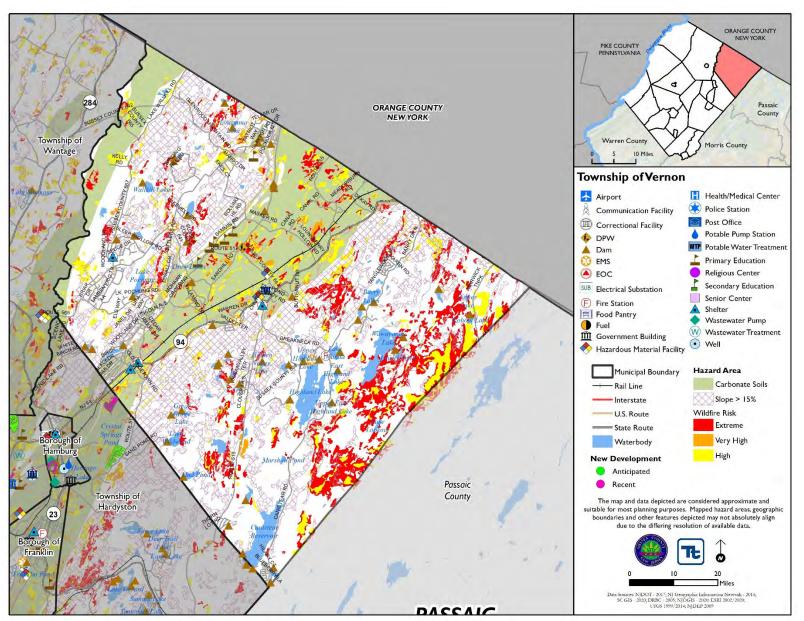


Figure 9.23-3 Township of Vernon Hazard Area Extent and Location Map 3



	A	ction W	orkshee	t					
Project Name:	PPE Stockpile								
Project Number:	2021-Vernon-001								
	Ri	sk / Vul	nerabili	ty					
Hazard(s) of Concern:	Disease Outbreak								
Description of the Problem:	personal protective eq municipal staff and re be used for the COVI such as pandemic infl	During the current COVID-19 pandemic, the Township did not have an adequate supply of personal protective equipment (PPE) for municipal staff. Without proper PPE, it puts municipal staff and residents at risk to the spread of infectious diseases. This equipment can be used for the COVID-19 pandemic response as well as future infectious disease outbreaks, such as pandemic influenza. Action or Project Intended for Implementation							
	Action or Proje	ct Intend	ded for I	mplementation					
<b>Description of the</b> <b>Solution:</b> The Township will purchase PPE to create a stockpile for municipal staff. This will include gloves, masks, gowns, antibacterial handwash, antiviral cleaning solutions, sanitizers, and misters.									
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂					
Level of Protection:	PPE			ted Benefits avoided):	Increase protection from diseases; decrease risk of spread				
Useful Life:	Supply needs to be rep after use	placed	Goals N	/let:	1, 2, 3, 6				
Estimated Cost:	\$50,000		Mitigat	tion Action Type:	Local Plans and Regulations				
	Plan	for Imp	lementa	tion					
Prioritization:	High			d Timeframe for nentation:	Within 2 years				
Estimated Time Required for Project Implementation:	1 year		Potent Source	ial Funding s:	BRIC, NJDCA, Township Budget, FEMA Assistance to Firefighters Grant				
Responsible Organization:	Township OEM		Mecha	Planning nisms to be Used lementation if any:	Hazard Mitigation, Emergency Management				
	Three Alternatives	s Consid							
	Action No Action		E	stimated Cost	Evaluation				
Alternatives:	Shut down during d outbreak event	S		\$0 N/A	Current problem continues Loss of continuity of operations				
	Rely on county/state/ distribution			\$0	Supply not guaranteed				
	Progress Re	port (fo	r plan m	aintenance)					
Date of Status Report:									
Report of Progress:									
Update Evaluation of the Problem and/or Solution:									





	Acti	ion Worksheet
Project Name:	PPE Stockpile	
Project Number:	2021-Vernon-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protects life from disease outbreak
Property Protection	0	
Cost-Effectiveness	1	Cost-effective project
Technical	1	Technically feasible project
Political	1	
Legal	1	The Township has the legal authority to conduct the project.
Fiscal	0	Project will require funding support.
Environmental	1	
Social	1	Project would help protect families from disease outbreak events
Administrative	1	
Multi-Hazard	1	Disease Outbreak
Timeline	1	
Agency Champion	1	OEM
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	

\_\_\_\_\_

	Α	ction W	orkshee	t							
Project Name:	Vegetation Manageme	ent Plann	ing and I	mplementation							
Project Number:	2021-Vernon-002			*							
		sk / Vul	nerabili	tv							
Hazard(s) of Concern:					ere Winter Storm; Wildfire						
	-				ees. The Township's roads are						
Description of the Problem:	surrounded by vegeta Route 515, one of the Township has identified from trees to utility and are reported due to tree	surrounded by vegetation over-growth throughout the Township's 68 square miles. County Route 515, one of the Township's busiest roads, is particularly impacted by downed trees. The Fownship has identified that 14 miles of vegetation management is needed to reduce impacts from trees to utility and vehicle right-of-ways. During storm events, delays of up to six hours are reported due to trees in the road.									
	Action or Projec	t Inten	ded for I	mplementation							
<b>Description of the</b> <b>Solution:</b> The Township proposes to develop a proactive vegetation management plan and contract with a vegetation management company to prioritize vegetation removal, implement best practices, and cutback overgrown and dead vegetation to reduce impacts of downed trees. Funding will be sought to hire a contractor to remove high hazard trees that are beyond the Township's capabilities.											
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂							
Level of Protection:	PPE			ted Benefits avoided):	Enhanced utility of roads and decreased frequency of power outage following hazard events						
Useful Life:	Supply needs to be rep after use	blaced	Goals N	/let:	1, 2, 3, 6						
Estimated Cost:	\$2 million		Mitigat	tion Action Type:	Local Plans and Regulations						
	Plan	for Imp	lementa		T						
Prioritization:	High			d Timeframe for nentation:	Within 3 years						
Estimated Time Required for Project Implementation:	1 year			ial Funding	BRIC; HMGP; Township Funds						
Responsible Organization:	Township DPW/Contr	actor	Mecha	Planning nisms to be Used lementation if any:	Hazard Mitigation, Emergency Management						
	Three Alternatives	Consid									
	Action No Action		E	stimated Cost \$0	Evaluation Current problem continues						
Alternatives:	Ad-hoc vegetatic management	on		High	Continued damage/less efficient use of resources						
	Vegetation manager plan/implementati	ion		\$2 million	Proactive management						
	Progress Rep	port (fo	r plan m	aintenance)							
Date of Status Report:											
Report of Progress:											
Update Evaluation of the Problem and/or Solution:											

\_\_\_\_\_



	Acti	on Worksheet
Project Name:	Vegetation Management	Planning and Implementation
Project Number:	2021-Vernon-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protects life from disease outbreak
Property Protection	1	
Cost-Effectiveness	1	Cost-effective project
Technical	1	Technically feasible project
Political	1	
Legal	1	The Township has the legal authority to conduct the project.
Fiscal	0	Project will require funding support.
Environmental	0	
Social	1	Project would help protect families from disease outbreak events
Administrative	1	
Multi-Hazard	1	Multiple types of storm/wind events
Timeline	1	
Agency Champion	1	County; Township OEM/PW
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	

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# 9.24 TOWNSHIP OF WALPACK

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

## 9.24.1 Hazard Mitigation Planning Team

The Township of Walpack 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).

Alternate Point of Contact					
Name / Title: Michael Vreeland, Township Engineer, Van Cleef					
Engineering					
Address: 111 Howard Blvd Suite 101, Mt Arlington, NJ 07856					
Phone Number: 862-284-1100					
Email: mvreeland@vancleefengineering.com					
NFIP Floodplain Administrator					
an Cleef Engineering					
J 07856					
Method of Participation					
Primary point of contact, attended meetings, provided data and information on past impacts, contributed to the mitigation strategy; reviewed annex*					
n Cleef Alternate point of contact, NFIP floodplain					
administrator					
J					

#### Table 9.24-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B.

## 9.24.2 Jurisdiction Profile

The Township of Walpack is located in western Sussex County and has a total area of 24.7 square miles. It is the oldest municipality in Sussex County. The following unincorporated communities are located within the Township: Wallpack Center, Haneys Mill, Smith Ferry, Flatbrookville, and Donkeys Corners. The Township is bordered to the north by Sandyston Township, to the east by Stillwater and Hampton Townships, to the south by Warren County, and to the west by Pennsylvania. The Delaware River forms the western border of the Township. Other streams flow through the Township and include: Flat Brook and its tributaries and Vancampens





Brook and its tributaries. There are also several lakes and ponds that include Crater Lake, Lake Success, Long Pine Pond, and Hemlock Lake.

A majority of the land in the Township is under the jurisdiction of the National Park Service. The National Park Service also has jurisdiction over the Township's roadways.

According to the U.S. Census, the 2010 population for the Township of Walpack was 16. The estimated 2018 population was 6, a 37.5 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 0.0 percent of the population is 5 years of age or younger and 100.0 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.

## 9.24.3 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 9.23-2 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.

Type of Development	2	015	2	016	2	017	2	018	2	2019
r	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	Developmentof# of Units /(address and/orKnown HazardStatus of									
	<b>Recent Major Development and Infrastructure from 2015 to Present</b>									
	None identified									
Kno	Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years									
				None a	anticipate	d				

## Table 9.24-2. Recent and Expected Future Development

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

# 9.24.4 Capability Assessment

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

		Authority that		been integra	s of the HMP ited into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements			-		
Building Code	Yes	State & Local	Yes	Yes	-
Comment: • State mandated on local level under NJA Adopted 9/3/2019	4C 5:23-3.14. Inte	ernational Building Coa	le – New Jersey	Edition, 2018, NJ	IAC 5:24-3.14
Zoning Code	Yes	State & Local	Yes – if municipality has a Planning Board	Yes	-
Comment: • State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and m	to have current zo				
Subdivisions	Yes	County & Local	Yes – if municipality has a Planning Board	Yes	-
<ul> <li>Comment:         <ul> <li>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.</li> </ul> </li> </ul>					

#### Table 9.24-3. Planning, Legal and Regulatory Capability





		Authority that		been integra	ts of the HMP ited into your ances/plans?		
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.		
Stormwater Management	Yes	State & Local	Yes	Yes	-		
Comment: • See Title 7 of the NJ Administrative Coa	NIAC 7.8						
Post-Disaster Recovery	No	-	No	-	-		
Comment:	1						
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	No			
<b>Comment:</b> N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real Estate Con improvements, fees for services and amenities, the and police, as well as any hazards, risks or nuisance	nmission. The POS type of title and ow	all purchasers must reco S provides information s wnership interest being o	such as estimated offered, its proxi	d completion date	es for		
Growth Management	No	-	Yes – if municipality has a Planning Board	-	-		
Comment: • State Mandated on a municipal level. See Redevelopment Plan provides for the de of state environmental regulations make	lineation of Growt	th Areas and Environs;	Use of the endor	sed plans in the			
Site Plan Review	Yes	County & Local	nunicipality has a Planning Board	Yes	-		
<ul> <li>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.</li> </ul>							
Environmental Protection	No	-	No	-	-		
Comment:							
Flood Damage Prevention	Yes	State & Local	Yes	Yes	-		
<ul> <li>Comment:</li> <li>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.</li> <li>Regulations for the Flood Control Hazards Act were adopted in 2007 and amended effective June 20, 2016.</li> </ul>							
Wellhead Protection	No	-	No	-	-		
Comment:							
Emergency Management	No	-	No	-	-		
Comment:							
Climate Change	No	-	No	-			
childre children					-		
Comment:							





		Authority that		been integra	ects of the HMP grated into your linances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Comment:			-		-	
Disaster Reconstruction Ordinance	No	-	No	-	-	
Comment:						
Other	No	-	No	-	-	
Comment:		•				
• Planning Documents						
Comprehensive / Master Plan	No	State & Local	Yes	No	_	
Comment:	110	Suite & Local	103	110		
water supply, sanitary and drainage fac important to the development of the cou municipalities within the county in any r advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be o	nty. The county pla natters whatsoever rs with respect to Land Use Law (M and requires that	anning board shall enco r which may concern th the formulation of deve ILUL) L. 1975, s. 2, eff each municipality prep	nurage the co-op e integrity of the lopment program Aug 1, 1976 40:. are a master pla	eration of the loc county master p ns and budgets f 55D-28 provides n and update it e	cal lan and to for capital the required wery 6 years.	
Capital Improvement Plan	No	-	No	- -	-	
Comment:						
Disaster Debris Management Plan	No	-	No	-	-	
Comment:						
Floodplain or Watershed Plan	No	-	No	-	-	
Comment:						
Stormwater Management Plan	No	State & Local	Yes	-	-	
Comment:						
<ul> <li>The Stormwater Management rules (N.J the required components of regional and design and performance standards for n include groundwater recharge, runoff q consideration, the use of nonstructural s impervious surfaces, minimizing the use requirements for groundwater recharge of major development to be located with without prior authorization from the De</li> </ul>	d municipal storm ew (proposed) dev uantity controls, a tormwater manag of stormwater pip stormwater runoj in or to discharge	water management plan velopment. The design a nd runoff quality contro vement techniques includ pes, preserving natural d ff quantity control, storr runoff from the major d	ns and establish i nd performance ols. The rules em ding minimizing drainage feature nwater runoff qu development into	the stormwater m standards for ne phasize, as a prin disturbance, min s, etc. The rules a uality control, and a 300-foot ripar	aanagement w development mary imizing also set forth d the prohibition	
Stormwater Pollution Prevention Plan	No	-	Yes	-	-	
Comment: • The Phase II New Jersey Pollutant Disc 7:14A) were published in the February associated with existing stormwater run as required under the Federal Clean Wa operate small municipal separate storm municipalities, certain public complexes or maintain highways. The permit progr nonpoint source pollutant loads from the ordinances (litter control, pet waste, will management plan and implementing ord	2, 2004, NJ Regist off. The NJPDES I tter Act. These NJ. sewer systems, kn such as universiti am establishes the ese sources. The S dlife feeding, prop	er. These NJPDES rule: rules establish a regulat PDES rules govern the own as MS4s. Under th ies and hospitals, and S. e Statewide Basic Require tatewide Basic Require per waste disposal, etc.)	s are intended to tory program for issuance of pern is program, pern tate, interstate a rements that mu ments include ma ; the developmen	address and rea existing stormw hits to entities that nits must be secu nd federal agenc st be implemente easures such as: nt of a municipal	luce pollutants ater discharges at own or red by ies that operate d to reduce the adoption of stormwater	





				been integra	s of the HMP ted into your ances/plans?
	Do you have this? (Yes/No)	this? Regional, County,		If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
basin cleaning); implementing solids and education component.	d floatables contro	ol; locating discharge p	oints and stencil	ing catch basins;	and a public
Urban Water Management Plan	No	-	No	-	-
Comment:					
Habitat Conservation Plan	No	-	No	-	-
Comment:					
Economic Development Plan	No	-	No	-	-
Comment:					
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment: • NJ Coastal Area Facility Review Act (N. including construction, relocation, and e structures, and site preparation. This la	enlargement of bui	ildings or structures, an	d excavation, gr	ading, shore proi	ection
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:		I	1		
Business Development Plan	No	-	No	-	-
Comment:		1			
Other	No	-	No	-	-
Comment:		1	1		
Response/Recovery Planning					
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	No	-	Yes	-	-
Comment: • Each county and municipality in the Stat necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State	Emergency Operation the sen adopted by the	ions Plan shall be adop State Office of Emerge	ted no later than ncy Managemen	n one year after th	ne State
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-
Comment:		1			
Post-Disaster Recovery Plan	No	-	No	-	-
Comment:		1			





		Authority that		been integra	s of the HMP ited into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Continuity of Operations Plan	No	-	No	-	-
Comment:	·				
Public Health Plan	No	-	No	-	-
Comment:					
Other	No	-	No	-	-
Comment:					

#### Table 9.24-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Township Engineer. However, development has occurred in recent years.
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.	Because the National Park Service owns the majority of land in the Township, opportunities for developing land are incredibly rare.

#### ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

#### Table 9.24-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	No	-
Mitigation Planning Committee	No	-
Environmental Board / Commission	No	-
Open Space Board / Committee	No	-
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	County 911 System
Maintenance program to reduce risk	Yes	Emergency Operations Plan
Mutual aid agreements	Yes	With surrounding communities and State Police: EMS – Blue Ridge for north end and Blairstown Rescue Squad for south end; participation in the County 911 system; firefighting services by shared agreement with Sandyston Township Volunteer Fire Department
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Township Engineer and work with County engineering when necessary
Engineers or professionals trained in building or infrastructure construction practices	Yes	Township Construction Official in cooperation with the County
Planners or engineers with an understanding of natural hazards	Yes	Township Engineer



Staff/Personnel Resource	Available?	Department/Agency/Position
Staff with training in benefit/cost analysis	Yes	Township Engineer
Staff with training in green infrastructure	No	-
Staff with education/knowledge/training in low impact development	Yes	Township Engineer
Surveyor	No	-
Stormwater engineer	Yes	Township Engineer
Personnel skilled or trained in GIS applications	No	-
Local or state water quality professional	Yes	Township. Engineer
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	Victor Maglio, Mayor/Emergency Operations Coordinator
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	No	-
Resilience Officer	No	-
Other: NFIP Floodplain Administrator	Yes	Township Engineer
Other: Professionals trained in conducting damage assessments	Yes	Construction Official and Township Engineer

#### FISCAL CAPABILITY

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

#### Table 9.24-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Unknown
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Clean Water Act 319 Grants (Nonpoint Source Pollution)	Unknown
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 Walpack.

#### Table 9.24-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes – Mayor and Clerk
Do you have personnel skilled or trained in website development?	Yes - Contracted Individual





Criterion	Response
Do you have hazard mitigation information available on your	
website?	Yes – Community Notifications such as COVID-19
-If yes, briefly describe.	
Do you use social media for hazard mitigation education and	
outreach?	No
-If yes, briefly describe.	
Do you have any citizen boards or commissions that address issues	
related to hazard mitigation?	No
-If yes, briefly describe.	
Do you have any other programs already in place that could be	
used to communicate hazard-related information?	No
If yes, briefly describe.	

#### **COMMUNITY CLASSIFICATIONS**

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

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (Fire ISO Protection Class)	No	-	-
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	No	-	-

#### Table 9.24-8. Community Classifications

#### 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 9.24-9. 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





Hazard	Adaptive Capacity (Capabilities) - Strong/Moderate/Weak
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 has access to resources found in the public domain to determine the possible impacts of climate change upon the municipality. To date, integrating climate change in policies or actions has not yet been considered by the Township Committee.

#### NATIONAL FLOOD INSURANCE PROGRAM

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

#### Table 9.24-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Township Engineer
Who is your floodplain administrator? (name, department/position)	Michael Vreeland, 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?	2006
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	Meets, however the flood damage prevention ordinance requires update.
When was the most recent Community Assistance Visit or Community Assistance Contact?	July 31, 2006
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?	Yes, additional training for a new floodplain administrator would be useful.
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
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	0 policies \$0 insurance in force \$0 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	1 claim \$7,076 payments
Do you maintain a list of properties that have been damaged by flooding?	No properties have been damaged in the past.





Criterion	Response
Do you maintain a list of property owners interested in flood mitigation?	No property owners are currently interested.
*According to FEMA statistics as of October 13, 2020 Source: FEMA 2020	

#### ADDITIONAL AREAS OF EXISTING INTEGRATION

• **National Park Service:** The National Park Service has jurisdiction over the roadways in the Township and conducts upkeep and clearing during storm events.

## 9.24.5 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 Walpack'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 9.23-11 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 9.24-11. 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 <sup>rd</sup> and 24th.	Predominantly tree damage and power outages
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.	Economic impacts on local businesses (i.e. The Walpack Inn)

Source: FEMA 2020, NOAA NCEI 2020

### 9.24.6 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 Walpack 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 Walpack 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 Walpack has significant exposure.

#### **REPETITIVE FLOOD LOSSES**





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

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

#### Source: NFIP 2019

Note: The number of SRL properties excludes RL properties.

#### **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 9.24-12. Critical Facilities and Lifelines Flood Exposure

		Expo	osure
Name	Туре	1% Event	0.2% Event
Haneys Mill Dam (No Dam)	Dam	Х	Х
No Name #59 Dam	Dam	Х	Х

Source: Sussex County Planning Partnership 2020 Note: \*Identified lifeline

#### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the following vulnerabilities within their community:

- The Township experiences isolated low-lying roadway flooding not directly associated with floodplain (mainly at Old Mine Road and National Park Service Route 615 near the Flat Brook Bridge).
  - The roadways are under the jurisdiction of the National Park Service.
- Downed trees often result in power loss in the Township during storm events.
  - The Park Service is responsible for clearing of downed trees.
  - JCP&L has been trying to relocate lines out to the main road. Old powerlines run through woods that are hard to access.

#### 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 Walpack 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 Walpack. The Township of Walpack 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 Walpack indicated the following reasons why hazard rankings have changed since the 2016 HMP:





- The Township agreed with the calculated hazard rankings.
- The Township changed the risk ranking for geologic hazards from high to medium based on low occurrence and low development.
- The Township changed the risk ranking for wildfire from high to medium due to lower occurrence of events and mitigation actions such as prescribed burns taken by the state and the National Park Service.

Dam Failure	Disease Outbreak	c Drought	Earthqu	ake	Flood	Geologic
Low	Medium	Medium	Low		Medium	Medium
Hazardous Materials	Hurricane and Tropical Storm	Invasive Species	Nor'Easter	Sev Wea	Severe Yere Winter ther Weather	Wildfire
Medium	High	Medium	High	Hi	gh High	Medium

#### Table 9.24-13. Township of Walpack Hazard Ranking

## 9.24.7 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 9.23-15 and Table 9.23-16 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 9.24-14. Status of Previous HMP Mitigation Actions

			Status (In Progress, No	Include in the 2021 HMP Update?			
2010	6 Action Number Action Description	Responsible Party	Progress, Ongoing Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #		
Walpack- 1 (new)	Ensure continuity of operations in the Township. At this time, purchase and install a generator at municipal building that serves as EOC, shelter, etc.	Township	Personal generators purchased by residents and businesses mitigated Still require Township Municipal Building generator.	х	2020- Walpack-001		
Walpack- 2 (new)	Continue to maintain and enhance mutual aid and shared services agreements with surrounding municipalities.	Township with support of the County and surrounding municipalities	Ongoing Capability				
Walpack- 3 (old #2)	Implement Fire Wise Program throughout the Township.	Township	No Progress				
Walpack- 4 (old #3)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	Township	Ongoing Capability				





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

• The Parks Service has made some roadway improvements near Mill Brook to reduce flooding of the roadway.

#### **PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE**

The Township of Walpack 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 Walpack 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 9.23-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Walpack 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 9.23-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.24-15. 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
		<b>Problem</b> : Backup power sources are necessary to maintain critical services for critical facilities. The Township Municipal Building requires a backup power source.		Severe			FEMA HMGP and BRIC, USDA Communit y Facilities	Contin uity of operati ons	\$50,0 00				
2020- Walpack- 001 Municipal Building Backu Power	Building Backup	<b>Solution:</b> The Engineer will research what size generator is needed to power the Township Municipal Building. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Municipal Building.	Existing	Severe Storm, Severe Winter Storm, Hurricane, Nor'Easter	1, 2, 6 ane,	2, 6 Engineer, Emergency Manager	Grant eer, Program, gency Emergency			Wi thi 5 ye ars	Hig h	SIP	ES
2020- Walpack- 002	Relocate Power Lines	<ul> <li>Problem: Downed trees often result in power loss in the Township during storm events.</li> <li>Solution: The Township will support JCP&amp;L efforts to relocate power lines out of wooded areas to areas along roadways. This will reduce likelihood of</li> </ul>	Existing	Severe Storm, Severe Winter Storm, Hurricane,	2	JCP&L, Township Administrat ion, National Park	HMGP, BRIC, JCP&L	Reduct ion in power loss	High	Wi thi 5 ye ars	Hig h	SIP	РР
		falling trees resulting in power loss and increased capability for tree trimming.		Nor'Easter		Service				ars			
		Problem: The Township experiences isolated areas of roadway flooding not directly associated with flood plain (mainly at Old Mine Road and National Park Service Route 615 near thee Flat Brook Bridge).				National Park	HMGP, BRIC,	Reduct ion in	TBD by	Wi thi			
Walpack-	Low-lying Roadway Flooding	<b>Solution:</b> The Township will work with the National Park Service to identify flooding of low-lying roadways. An engineering study will be conducted to determine cost-effective mitigation actions. The National Park Service will then implement the identified actions when funding is available. The Township will partner on grant applications where feasible.	Existing	Severe Storm, Flood	2	Service, Township Administrat ion	National Park Service budget	flood risk of roadwa ys	engin eerin g study	n 5 ye ars	Hig h	SIP	SP, 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						
Walpack- 004	Update Flood	<b>Problem</b> : The Township's Flood Damage Prevention Ordinance is outdated and requires update.		Flood	2,5	Administrat ion	Township budget	Meet NFIP standar ds	Staff time	Wi thi n 6 m on ths	Hig h	LPR							
	Damage Prevention Ordinance	<b>Solution:</b> The Township will update and adopt a new Ordinance to meet current standards. The Ordinance will also change the floodplain administrator from the clerk to the engineer.	New										PR						
2020- Walpack- 005	Floodplain Administrator Training	<b>Problem</b> : The Township Engineer is new to the role of Floodplain Administrator.	N/A Flood								5	Administrat	Township	Increas ed	Staff	1	Hig	I DD	DD
		<b>Solution:</b> The Engineer will attend training for floodplain administration offered by FEMA and NJ DEP.		Flood	d 5	<sup>5</sup> ion	budget	capabil ity of FPA	time	ye ar	h	LPR	PR						

Notes:

CRS

DPW

FEMA

FPA

HMA

#### Acronyms and Abbreviations: CAV

#### Potential FEMA HMA Funding Sources:

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

#### 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.

N/A Not applicable NFIP National Flood Insurance Program

OEM Office of Emergency Management

Community Assistance Visit

Department of Public Works

Hazard Mitigation Assistance

Federal Emergency Management Agency

Community Rating System

Floodplain Administrator

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:

- ٠ 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, ٠ 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.





Initiative Number 2020- Walpack-	Mitigation Initiative Name Municipal Building Backup Power	■ Life Safety	Property Protection	<ul> <li>Cost</li> <li>Effectiveness</li> </ul>	- Technical	- Political	- Legal	o Fiscal	- Environmental	- Social	- Administrative	- Multi-Hazard	o Timeline	Agency Champion	Other Community	Total	High / Medium / Low High
001 2020- Walpack- 002	Relocate Power Lines	1	1	1	1	1	0	0	1	1	1	1	0	1	1	11	High
2020- Walpack- 003	Low-lying Roadway Flooding	1	1	1	1	1	0	0	1	1	1	1	0	1	1	11	High
2020- Walpack- 004	Update Flood Damage Prevention Ordinance	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2020- Walpack- 005	Floodplain Administrator Training	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High

Table 9.24-16. Summary of Evaluation and Action Priorities

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.





Hazard	Prevention	Property Protection	Public Education and Awareness	Natural Resource Protection	Emergency Services	Structural Projects	Climate Resilient	Community Capacity Building
Dam Failure							1	
Disease Outbreak								
Drought								
Earthquake								
Flood	Х	Х				Х	Х	Х
Geologic								
Hazardous Materials								
Hurricane and Tropical Storm		Х			Х	Х		
Invasive Species								
Nor'Easter		Х			Х	Х		
Severe Weather		х			х	Х		
Severe Winter Weather		Х			Х	Х		
Wildfire								

## Table 9.24-17. Analysis of Mitigation Actions by Hazard and Category

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

RED high ranked hazard

ORANGE medium ranked hazard

YELLOW low ranked hazard



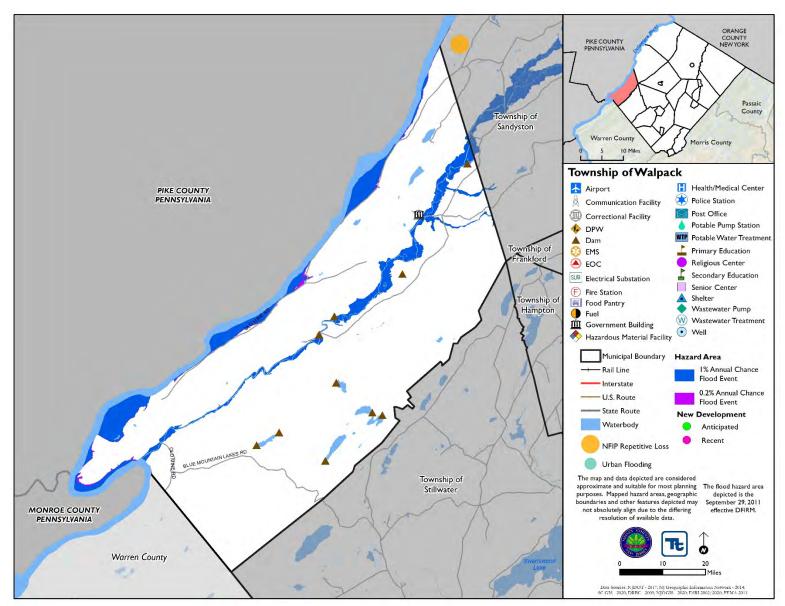


Figure 9.24-1. Township of Walpack Hazard Area Extent and Location Map 1

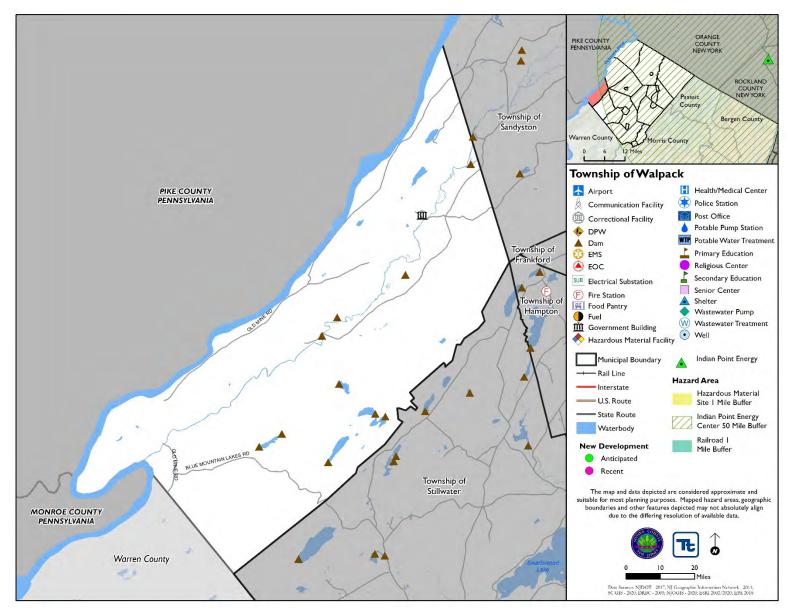


Figure 9.24-2. Township of Walpack Hazard Area Extent and Location Map 2



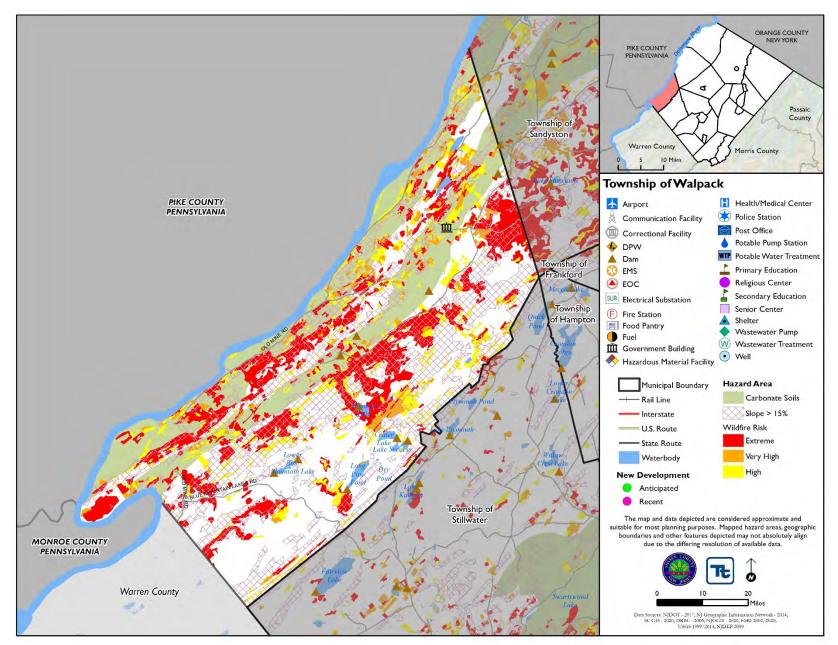


Figure 9.24-3 Township of Walpack Hazard Area Extent and Location Map 3

ΤĿ



				•					
	M	Action V		sheet					
Project Name:		Municipal Building Backup Power							
Project Number:	2020-Walpack-001	2020-Walpack-001							
Risk / Vulnerability									
Hazard(s) of Concern:	Severe Storm, Sever	Severe Storm, Severe Winter Storm, Hurricane, Nor'Easter							
Description of the Problem:		Backup power sources are necessary to maintain critical services for critical facilities. The Township Municipal Building requires a backup power source.							
Action or Project Intended	for Implementation	ı							
Description of the Solution:	The Engineer will research what size generator is needed to power the Township Municipal Building. The Township will then purchase and install the selected generator and necessary electrical components to supply backup power to the Municipal Building.								
Is this project related to a	Critical Facility?	Yes	$\boxtimes$	No 🗌					
Level of Protection:	N/A			mated Benefits ses avoided):		Ensures continuity of operations of DPW building			
Useful Life:	20 years			ls Met:		1, 2, 6			
Estimated Cost:	\$50,000		Mitigation Action Type:		Structure and Infrastructure Projects (SIP)				
Plan for Implementation									
Prioritization:	High			ired Timeframe fo lementation:	or 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, Municipal Budget				
Responsible Organization:	Public Works		to b	al Planning Mecha e Used in lementation if any		Hazard Mitigation, Emergency Management			
Three Alternatives Conside	ered (including No A	(Action)	mp	rementation if any	•	<u> </u>			
	Action	)	F	Estimated Cost		Evaluation			
	No Action			\$0		Problem continues.			
Alternatives:	Install solar pan	els		\$100,000	amo	eather dependent; need large ount of space for installation; xpensive if repairs needed			
	Install wind turb	all wind turbine \$100,000 Weather dependent to wildlife; expension		ther dependent; poses a threat 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:	Municipal Building Back	tup Power							
Project Number:	2020-Walpack-001								
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate							
Life Safety	1	Project will protect critical services of Township Municipal Building							
Property Protection	1	Project will protect building from power loss.							
Cost-Effectiveness	1								
Technical	1								
Political	1								
Legal	1	The Township has the legal authority to complete the project.							
Fiscal	0	Project requires funding support.							
Environmental	1								
Social	1								
Administrative	1								
Multi-Hazard	1	Severe Storm, Severe Winter Storm, Hurricane, Nor'Easter							
Timeline	0	Within 5 years							
Agency Champion	1	Engineer, Emergency Manager							
Other Community Objectives	1								
Total	12								
Priority (High/Med/Low)	High								





	Α	ction W	orksheet	ţ						
Project Name:	Low-lying Roadway	Flooding	5							
Project Number:	2020-Walpack-003									
	Ri	sk / Vul	nerabilit	у						
Hazard(s) of Concern:	Flood, Severe Storm	Flood, Severe Storm								
Description of the Problem:	with flood plain (mai	The Township experiences isolated areas of roadway flooding not directly associated with flood plain (mainly at Old Mine Road and National Park Service Route 615 near thee Flat Brook Bridge).								
Action or Project Intended for Implementation										
Description of the Solution:	The Township will work with the National Park Service to identify flooding of low-lying roadways. An engineering study will be conducted to determine cost-effective mitigation actions. The National Park Service will then implement the identified actions when funding is available. The Township will partner on grant applications where feasible.									
Is this project related to a C Lifeline?	Critical Facility or	Yes		No 🖂						
Level of Protection:	TBD by engineering s	study		ed Benefits avoided):	Reduction in flood risk					
Useful Life:	TBD by engineering s	study	Goals M	let:	2					
Estimated Cost:	TBD by engineering	study	Mitigation Action Type:		Structure and Infrastructure Projects					
	Plan	for Imp	lementa							
Prioritization:	High			l Timeframe for entation:	Within 5 years					
Estimated Time Required for Project Implementation:	5 years		Potenti Sources	al Funding S:	HMGP, BRIC, municipal budget					
Responsible Organization:	National Park Service Township Administr			lanning iisms to be Used ementation if any:	Hazard mitigation planning, stormwater planning					
	Three Alternatives	Consid								
	Action		Es	timated Cost	Evaluation					
A1	No Action			\$0	Current problem continues					
Alternatives:	Elevate roadwa	, ,		\$500,000	Costly and may not solve problem					
	Relocate roadwa			N/A	Not possible					
	Progress Rep	port (fo	r plan ma	intenance)						
Date of Status Report:										
Report of Progress:										
Update Evaluation of the Problem and/or Solution:										







	Action Worksheet									
Project Name:	Low-lying Roadway Flo	oding								
Project Number:	2020-Walpack-003									
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate								
Life Safety	1									
Property Protection	1	Reduction in flooding risk								
Cost-Effectiveness	1									
Technical	1	Technically feasible project								
Political	1									
Legal	0	The Township does not have the legal authority to conduct the project on its own. The roadways are under the jurisdiction of the National Park Service.								
Fiscal	0	Project will require grant funding.								
Environmental	1									
Social	1	Project would reduce flooding impacts.								
Administrative	1									
Multi-Hazard	1	Flood, Severe Storm								
Timeline	0									
Agency Champion	1	National Park Service, Township Administration								
Other Community Objectives	1									
Total	11									
Priority (High/Med/Low)	High									





# 9.25 TOWNSHIP OF WANTAGE

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

## 9.25.1 Hazard Mitigation Planning Team

The Township of Wantage 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).

Primary	Point of Contact		Alternate Point of Contact					
			Name / Title: Michael Restel, Administrator Address: 888 State Route 23, Wantage, NJ 07461 Phone Number: (973) 647-5015 Email: mike@wantagetwp-nj.org					
NFIP Floodplain Administrator         Name / Title: Harold Pellow, Engineer         Address: 17 Plains Road, Augusta, NJ 07822         Phone Number: (973) 948-6463         Email: hpellow@hpellow.com         Name         Title         Mathematical of Destiningtion								
Name	Title	Met	thod of Participation					
Joe Konopinski	OEM Coordinator	miti haza kick	nary point of contact, capability assessment completion; gation strategy development; provision of data and input on ard rankings; member of the Steering Committee; attended the coff meeting, risk assessment meeting, annex training and gation strategy workshop; reviewed annex*					
Michael Restel	Township Administrator	miti	ernate point of contact, capability assessment completion; gation strategy development; provision of data and input on ard rankings; reviewed annex*					
Harold Pellow	Engineer	NFI	P Floodplain Administrator; reviewed annex*					
Ashley Wilson	CFO	Rev	iewed annex*					
Joseph Butto	Construction Official	Rev	iewed annex*					
Claude R Wagner	Public Works Director	Rev	iewed annex*					
Mark Snook	Fire Chief		iewed annex*					

## Table 9.25-1. Hazard Mitigation Planning Team

\*Refer to Jurisdictional Annex Review Sign-Off Sheet in Appendix B





## 9.25.2 Jurisdiction Profile

Wantage Township is located in northern Sussex County. The Township fully surrounds the Borough of Sussex. New York State is located to the north, the Townships of Lafayette and Hardyston are located to the south, Vernon Township is located to the east and Montague and Frankford Townships are located to the west. It has a total area of 67.5 square miles. The following unincorporated communities are located within the Township: Mount Salem, Rockport, Hanford, Colesville, Van Syckles, Quarryville, Libertyville, Plumbsock, Beemerville, Woodbourne, McCoys Corner, Lewisburg, Martins, Papakating, and Roys. The Wallkill River forms the eastern border of the Township and its tributaries flow through the Township as well. Other streams, ponds and lakes in the Township include, but not limited to: Hanfrod Brook, Clove Brook, West Branch Papakating Creek and its tributaries, Papakating Creek, Clove Acres Lake, Lake Windsor, Lake Neepaulin, Herzenberg Lake, and Lake Rutherford.

According to the U.S. Census, the 2010 population for the Township of Wantage was 11,358. The estimated 2018 population was 11,902 a 4.4 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 4.2 percent of the population is 5 years of age or younger and 18.2 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.

## 9.25.3 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 9.24-2 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.

Type of Development	2015		2016		2017		2018		2019	
Number	of Build	ing Permi	ts for Ne	w Constru	ction Is	sued Since	the Prev	vious HMI	?	
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single and Two-Family Units	7	-	3	-	2	-	3	-	8	-
Multi-Family	0	-	1	-	60	-	0	-	0	-
Other (commercial, mixed- use, etc.)	1	-	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 Dev	velopmer	nt and Inf	rastruct	ure from 2	2015 to P	resent		
Wantage Emergency Operations Center	Emerge Operati Center	ions	1		888 Ro Wantaş		Nuclear Incident Hazard Area Complet		2	
Known or A	Anticipat	ed Major	Develop	ment and	Infrastru	ucture in t	he Next	Five (5) Ye	ears	
			No	one Anticip	ated					

## Table 9.25-2. Recent and Expected Future Development

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

SFHA = Special Flood Hazard Area





## 9.25.4 Capability Assessment

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

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

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-today 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 Wantage 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 Wantage and where hazard mitigation has been integrated.

		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
	<b>Do you have</b> <b>this?</b> (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.	
Codes, Ordinances, & Requirements						
Building Code	Yes	State & Local	Yes	Yes	-	
<ul> <li>State mandated on local level under NJA Adopted 9/3/2019</li> <li>The Township's code (Chapter 8) follow maintenance standards that requires bui</li> </ul>	s State Uniform C	onstruction Code Act (1	2			
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-	
Comment: • State permissive on local level. Per State Power to zone, requires all jurisdictions has adopted the land use element and mu	to have current zo aster plan.	oning and other land de				

## Table 9.25-3. Planning, Legal and Regulatory Capability

- This code is found in Chapter 13 of the municipal code and was adopted in 1979.
- The general intent of the code is to establish a precise and detailed plan for the use of land in the township based on the master plan for Wantage Township and enacted in order to promote and to protect the public health, safety, morals, comfort, convenience



		Authority that		been integra	ts of the HMP ated into your ances/plans?
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul> <li>and the general welfare. This chapter is regulate intensity of use and the location alteration of existing buildings, limit congenerally to promote the purposes of zo.</li> <li>The Township has a floodplain district teliminate or reduce flooding or erosion.</li> <li>When updating the Zoning Ordinance, tmunicipality.</li> </ul>	n of buildings, esta ngestion in the roa ning as set forth. hat prohibits filling	blish standards of deve ds, protect against haza g, draining, constructin	lopment, prohibi urds, and conserv g levees and bull	it incompatible us we the taxable val kheads, or impro	ses, regulate the lue of land, and ving land to
Subdivisions	Yes	Local – Land Use Board	Yes – if municipality has a Planning Board	Yes	-
or two dwelling-unit buildings shall be e of adjustment shall substitute for that of or site plan pursuant to subsection 63b. commissioners of any county having a c county by said county planning board a set forth and limited hereinafter in this The land subdivision code (Chapter 12) order to promote the public health, safe applications, the Land Use Board will be	<i>The planning boar of this act . Dictat ounty planning bound for the approve section. provides the rules ty, convenience an</i>	d whenever the board o ed by the Municipal La ard shall provide for th al of those subdivisions , regulations and standed d general welfare of the	f adjustment has nd Use Law. NJ ne review of all s affecting county ards to guide lan e township. When	: jurisdiction over Statute 40:27-6.2 ubdivisions of lar v road or drainag ud subdivision in a n reviewing subdi	a subdivision - the board of ad within the facilities as the township in vision
must show flood hazard areas, steep slo Stormwater Management			Yes	Yes	
Comment: See Title 7 of the NJ Administrative Coa This ordinance was adopted in 3/30/06 minimum stormwater management reau	and is found in Ch			urpose of the code	e is to establish
Post-Disaster Recovery	No	-	No	-	-
Comment:		I.		I	
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-
Comment: • N.J.A.C. 13:45A-29.1 - Before signing a (POS) approved by the New Jersey Real improvements, fees for services and ame schools, fire and police, as well as any b	l Estate Commissic enities, the type of	on. The POS provides in title and ownership inte	formation such or prest being offere	as estimated com	pletion dates fo
Growth Management	Yes	Local	municipality has a Planning Board	No	-
Comment: • State Mandated on a municipal level. Se Redevelopment Plan provides for the de of state environmental regulations make • These ordinances were adopted in 1979	lineation of Growt es the Plan Endors and found in Chap	h Areas and Environs; ement process a growth pter 13 (Zoning) of the p	ement Process v Use of the endor management str municipal code.	sed plans in the i rategy.	
<ul> <li>The Governing Body is responsible for t</li> </ul>			Yes – if		



		Authority that		been integra	cts of the HMP rated into your nances/plans?					
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.					
<ul> <li>Dictated by the Municipal Land Use Law review. NJ Statute 40:27-6.2: The board review of all subdivisions of land within affecting county road or drainage facili planning boards shall have a complete f municipal clerk shall file with the county on the effective date of this act and shall such an ordinance which affects lands a boundary, or proposed facilities or publ given to the county planning board at le a copy of the official notice of the public.</li> <li>In the Township, site plan review and aq clearing of a site or placing of any fill ou permit shall be issued for any building ouse of any building including accessory certificate of occupancy shall be given u board.</li> </ul>	l of commissioners the county by said ties as set forth and ile of the planning planning board a notify the county p djoining county ro ic lands shown on ast 10 days prior to hearing together poproval is required n lands contemplat r use, or reduction structures unless a nless all construct	of any county having a county planning board d limited hereinafter in and zoning ordinances copy of the planning a planning board of the ir pads or other county lan the county master plan the county master plan the public hearing the with a copy of the propo- before any change of u ed for development, and or enlargement in size site plan is first submit ion and development co	county planning d and for the app this section. 40 of all municipal nd zoning ordina throduction of a tods, or lands lyin or official count reon by persona osed ordinance. ise, or before an d, except as here or other alterat the d and approve	g board shall pro proval of those su :27-6.10 In order lities in the count ances of the mun- ny revision or an ug within 200 fee ty map. Such no al delivery or by o y excavation, ren- einafter provided ion of any buildi ed by the reviewi	wide for the ubdivisions r that county y, each icipality in effect rendment of t of a municipal tice shall be certified mail of noval of soil, , no building ng or change in ng board and no					
The Land Use Board is responsible for t			N.							
Environmental Protection	No	-	No	-	-					
Comment: Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	2021- Wantage-004					
<ul> <li>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.</li> <li>The Township Engineer is responsible for this ordinance in compliance with Chapter 18- Flood Damage Prevention. The code requires a development permit before any construction or development begins, including placement of manufactured homes, within any area of special flood hazard. Any new construction or substantial improvements in the SFHA must have their lowest floor elevated to or above the BFE. For non-residential construction, they can either elevate to the BFE or floodproof areas below the BFE.</li> <li>The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard</li> </ul>										
requirement and does not meeting New. Wellhead Protection	No	- -	No	-	-					
Comment:										
Emergency Management	Yes	Local	No	No	-					
Comment: • Adopted February 7 <sup>th</sup> , 2019- Local Plan										
Adopted February 7 <sup></sup> , 2019- Local Plan Climate Change	No	_	No	-	-					
Comment:				I						
Disaster Recovery Ordinance	No	-	No	-	-					
Comment:										
Disaster Reconstruction Ordinance	No	-	No	-	-					
Comment:										
Other:	No	-	-	-	-					
Comment:										
Planning Documents										
Comprehensive / Master Plan	Yes	Local	Yes	No	-					
Comment:										



Do you have this? (Yes/No)         enforces (Federal, State, Regional, County, Local)         Is this State Mandated?         If yes-how? Mandated?         If no - add Mitigation Pescribe in applicable.           • 2018 Revised NJ Statue 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, waterray and water supply, and water supply, sanitary and transcere, and extent of streets or roads, viaducts, bridges, waterray and water supply, sanitary and transcere, and extent of streets or roads, viaducts, bridges, waterray and water supply, sanitary and transcere, anger exercision of urban development areas for purposes of conservation. food and water supply, sanitary and transcere supply sanitary and transcere 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 04:550-28 provides the required components of a municipal Master Plan and requires that acch 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 benefited from a presumption of validity. The Master Plan Reexamination Report for Wantage Township was adopted on October 24, 2009.           Comment: • The 2020 budget included the 6-year capital program (2020 to 2025) for the Township. It included line items for capital improvement funds, i			Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?		
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 vaterfront 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 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 (MLU) 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 4020 budget included the 6-year capital program (2020 to 2025) for the Township. It included line items for capital improvements.         • Disaster Debris Management Plan       Yes       Local       No       Yes       -         • Disaster Debris Management Plan is in development.       Yes       Local       No       Yes       -         • Disaster Debris Management Plan       Yes       Local       No		this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	State Mandated?	Describe in comments.	Mitigation Action #, if applicable.	
Comment:       • The 2020 budget included the 6-year capital program (2020 to 2025) for the Township. It included line items for capital improvement funds, improvements to roads, purchase of emergency equipment, improvements to parks, and drainage improvements.         Disaster Debris Management Plan       Yes       Local       No       -       2021-Wantage-005         Comment:       • A Disaster Debris Management Plan is in development.       Floodplain or Watershed Plan       Yes       Local       No       Yes       -         Comment:       • The Governing Body is responsible for this plan, which was adopted on 9/8/11, in compliance with Ordinance 2011-08.       Stormwater Management Plan       Yes       Local       Yes       -         • 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	the county. The master plan of a county, show the county planning board's recon among other things, the general locatio developments, parkways, playgrounds, f the general location and extent of forest water supply, sanitary and drainage fac important to the development of the cou municipalities within the county in any r advise the board of chosen commissione expenditures. Per State of NJ Municipal components of a municipal Master Plan Further, all zoning ordinances must be d	with the accompa- mendations for the n, character, and e orests, reservation s, agricultural aree- cilities, or the prote- natters whetsoever res with respect to o Land Use Law (M and requires that consistent with the	nying maps, plats, char, e development of the te extent of streets or road, as, parks, airports, and as, and open-developm ection of urban developm inning board shall enco which may concern tha the formulation of devel (LUL) L. 1975, s. 2, eff each municipality prepa Master Plan or will not	ts, and descripti rritory covered s, viaducts, brid other public wa ent areas for pu ment, and such urage the co-op e integrity of the opment program Aug 1, 1976 40: are a master pla t be benefitted fr	we and explanato by the plan, and r ges, waterway and vs, grounds, plac- rposes of conserv other features as eration of the loc county master plac- ns and budgets for 55D-28 provides n and update it er oom a presumptio	ry matter, shall nay include, nd waterfront es and spaces; vation, food and may be val lan and to for capital the required very 6 years.	
<ul> <li>The 2020 budget included the 6-year capital program (2020 to 2025) for the Township. It included line items for capital improvement funds, improvements to roads, purchase of emergency equipment, improvements to parks, and drainage improvements.</li> <li>Disaster Debris Management Plan</li> <li>Yes</li> <li>Local</li> <li>No</li> <li>2021-Wantage-005</li> <li>Comment:         <ul> <li>A Disaster Debris Management Plan is in development.</li> </ul> </li> <li>Floodplain or Watershed Plan</li> <li>Yes</li> <li>Local</li> <li>No</li> <li>Yes</li> <li>-</li> <li>Comment:         <ul> <li>The Governing Body is responsible for this plan, which was adopted on 9/8/11, in compliance with Ordinance 2011-08.</li> </ul> </li> <li>Stormwater Management Plan</li> <li>Yes</li> <li>Local</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Local</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>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</li> </ul>	Capital Improvement Plan	Yes	Local	No	Yes	-	
Disaster Debris Management Plan       Yes       Local       No       -       Wantage-005         Comment:       •       A Disaster Debris Management Plan is in development.       -       Wantage-005         Floodplain or Watershed Plan       Yes       Local       No       Yes       -         Comment:       •       The Governing Body is responsible for this plan, which was adopted on 9/8/11, in compliance with Ordinance 2011-08.       -         Stormwater Management Plan       Yes       Local       Yes       Yes       -         Comment:       •       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	The 2020 budget included the 6-year cap improvement funds, improvements to root					ge	
Comment:       • A Disaster Debris Management Plan is in development.         Floodplain or Watershed Plan       Yes       Local       No       Yes       -         Comment:       • The Governing Body is responsible for this plan, which was adopted on 9/8/11, in compliance with Ordinance 2011-08.       Stormwater Management Plan       Yes       Local       Yes       Yes       -         Stormwater Management Plan       Yes       Local       Yes       Yes       -         Comment:       •       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	Disaster Debris Management Plan	Yes	Local	No	-	-	
Floodplain or Watershed Plan       Yes       Local       No       Yes       -         Comment:       •       The Governing Body is responsible for this plan, which was adopted on 9/8/11, in compliance with Ordinance 2011-08.		in development.				0	
• The Governing Body is responsible for this plan, which was adopted on 9/8/11, in compliance with Ordinance 2011-08.         Stormwater Management Plan       Yes       Local       Yes       Yes       -         Comment:       • 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			Local	No	Yes	-	
Stormwater Management Plan         Yes         Local         Yes         Yes         -           Comment:         •         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         •							
Comment: • 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	· · · ·		· · · · · · · · · · · · · · · · · · ·			1-08.	
• 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	8	Yes	Local	Yes	Yes	-	
<ul> <li>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.</li> <li>This plan was adopted on 3/8/05.</li> <li>The Governing Body is responsible for this plan in compliance with Stormwater Management Plan.</li> </ul>	anagement w development nary imizing ılso set forth d the prohibition						
Stormwater Pollution Prevention PlanYesLocalYesYes-	Stormwater Pollution Prevention Plan	Yes	Local	Yes	Yes	-	
<ul> <li>Comment:         <ul> <li>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.</li> </ul></li></ul>							
	Urban Water Management Plan	No	-	No	-	-	
Comment:	-		L		1		
Habitat Conservation Plan     No     -     No     -	Habitat Conservation Plan	No	-	No	-	-	





		Authority that		Have aspects of the HMP been integrated into your codes/ordinances/plans?	
	Do you have this? (Yes/No)	enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Comment:					
Economic Development Plan	No	-	No	-	-
Comment:					
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment: • NJ Coastal Area Facility Review Act (N- including construction, relocation, and a structures, and site preparation. This la	enlargement of bui	ldings or structures, an	d excavation, gr	ading, shore pro	tection
Community Wildfire Protection Plan	No-NJFFS	-	No	-	-
Comment:				1	
Community Forest Management Plan	No	-	No	-	-
Comment:					
Transportation Plan	Yes	Local	No	No	-
Comment: • The Land Use Board is responsible for t	his plan which we	is adopted in $2014$ in c	ompliance with	the Master Plan	
Agriculture Plan	No	-	No	-	-
Comment:					
Climate Action Plan	No	-	No	-	-
Comment:	1.0		110		
Tourism Plan	No	-	No	-	-
Comment:					
Business Development Plan	Yes- Committee (MP)	Local	No	No	-
Comment:					
Other: Open Space Plan	Yes	Local	No	Yes	-
Comment: • This plan was adopted in March of 2008 • The Governing Body is responsible for t		ance with the Open Spa	ce Plan.		
Response/Recovery Planning		Γ			
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-
Comment: Each county and municipality in the State necessary to implement the plan. Each E Emergency Planning Guidelines have be subsequent scheduled review of the State This plan was rewritten and adopted in . The Office of Emergency Management is.	Emergency Operation even adopted by the e Emergency Oper 2019.	ions Plan shall be adop State Office of Emerge ations Plan. L.1989, c.2	ted no later than ncy Managemen 222, s.19.	one year after the one year after the one shall be even the one of	he State aluated at such
Threat & Hazard Identification & Risk	No	-	No	-	-
Assessment (THIRA) Comment:		<u> </u>			
Post-Disaster Recovery Plan	Yes	Local	No	Yes	_
Comment: • The Office of Emergency Management is Management Plan.					the Emergency





	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	been integra	s of the HMP ated into your ances/plans? If no - add Mitigation Action #, if applicable.
Continuity of Operations Plan	No	-	No	-	-
Comment:					
Public Health Plan	No	-	No	-	-
Comment:					
Other	No	-	No	-	-
Comment:					

## Table 9.25-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Building Department
Does your jurisdiction have the ability to track permits by hazard area?	Yes
Does your jurisdiction have a buildable lands inventory? -If yes, please describe briefly. -If no, please quantitatively describe the level of buildout in the jurisdiction.	No. While there are many undeveloped areas, no large scale development is likely, limited by location.

### ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Table 9.25-5. Administrative and T	Technical Capabilities
------------------------------------	------------------------

Staff/Personnel Resource	Available?	Department/Agency/Position		
Administrative Capability				
Planning Board	Yes	The Township's Land Use Board considers the impact on the community when development of land is proposed. The board will make recommendations to stay in compliance with the existing township ordinances.		
Mitigation Planning Committee	No	-		
Environmental Board / Commission	Yes	Wantage Township Clean Communities Program		
Open Space Board / Committee	Yes	The Township has an Open Space Committee that is made up of six committee members.		
Economic Development Commission / Committee	No	Currently inactive		
Warning Systems / Services (mass notification system, outdoor warning signals)	Yes	The Township utilizes their website to post news and announcements. The Township also uses Facebook to post weather alerts and news. Wantage Township OEM also uses Facebook to post weather alert and emergency notifications. The Township also has an electronic message board outside of municipal hall. Through County OEM, residents can use Swift911 to sign up for emergency alerts.		
Maintenance program to reduce risk	No	-		
Mutual aid agreements	Yes	Public Safety		
Technical/Staffing Capability				





Staff/Personnel Resource	Available?	Department/Agency/Position	
Planners or engineers with knowledge of land development and land management practices	Yes	Land Use Board	
Engineers or professionals trained in building or infrastructure construction practices	Yes	Land Use Board	
Planners or engineers with an understanding of natural hazards	Yes	Land Use Board	
Staff with training in benefit/cost analysis	Yes	Finance	
Staff with training in green infrastructure	Yes	Harold Pellow	
Staff with education/knowledge/training in low impact development	Yes	Harold Pellow	
Surveyor	No	-	
Stormwater engineer	Yes	Contract- Pellow and Associates	
Personnel skilled or trained in GIS applications	No	-	
Local or state water quality professional	Yes	County	
Scientist familiar with natural hazards in local area	No	-	
Emergency manager	Yes	Emergency Management	
Watershed planner	Yes	Contract- Pellow and Associates	
Environmental specialist	Yes	Harold Pellow (wetlands)	
Grant writers	No	-	
Resilience Officer	No	-	
Other: NFIP Floodplain Administrator	Yes	Township Engineer	
Other: Professionals trained in conducting damage assessments	Yes	Administration	

## FISCAL CAPABILITY

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

## Table 9.25-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes Administrator
Capital Improvements Project Funding	Yes, Engineer, CFO
Authority to Levy Taxes for Specific Purposes	No
User Fees for Water, Sewer, Gas or Electric Service	No
Incur Debt through General Obligation Bonds	Yes, Governing Body
Incur Debt through Special Tax Bonds	Yes, Governing Body
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	No
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No
Other: Open Space Acquisition Funding Programs	Yes, Governing Body

## EDUCATION AND OUTREACH CAPABILITY

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





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.	No
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes – both the Township and the Township OEM use Facebook to provide weather updates and emergency alerts.
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.	No

## Table 9.25-7. Education and Outreach Capabilities

### **COMMUNITY CLASSIFICATIONS**

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

### Table 9.25-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (Fire ISO Protection Class)	No	-	-
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	Yes	Not certified	Joined program on November 11, 2010

#### ADAPTIVE CAPACITY

Adaptive capacity is defined as "the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences" (IPCC 2014). In other words, it describes a jurisdiction's current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction's rating.

#### Table 9.25-9. Adaptive Capacity

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



Hazard	Adaptive Capacity (Capabilities) - Strong/Moderate/Weak
Hazardous Materials	Moderate
Hurricane and Tropical Storm	Moderate
Invasive Species	Strong
Nor'Easter	Strong
Severe Weather	Strong
Severe Winter Weather	Strong
Wildfire	Strong

Notes:

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

### NATIONAL FLOOD INSURANCE PROGRAM

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

## Table 9.25-10. 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 meets minimum requirements set by FEMA and the State. §18-5.2 of the municipal code lists specific standards for residential and non-residential construction. For residential, new construction or substantial improvements in the SFHA must have the lowest floor elevated at or above the BFE. Non-residential construction (new or substantial improvements) must be elevated to the BFE or be floodproofed.
When was the most recent Community Assistance Visit or Community Assistance Contact?	December 14, 1993
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 trainings on floodplain management if it were offered in the County.
Does your jurisdiction participate in the Community Rating System (CRS)?	No





Criterion	Response
-If yes, is your jurisdiction interested in improving its CRS Classification? -If no, is your jurisdiction interested in joining the CRS program?	
How many flood insurance policies are in force in your jurisdiction?* -What is the insurance in force? -What is the premium in force?	14 policies \$2,833,200 insurance in force \$16,373 premium in force
How many total loss claims have been filed in your jurisdiction?* -How many claims are still open or were closed without payment? -What were the total payments for losses?	10 claims \$180,963 in payments
Do you maintain a list of properties that have been damaged by flooding?	No, but if there were flood damages, the community would maintain lists/inventories.
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

- The Township conducts all-hazards public education and outreach program for their residents. This is done through their website and Facebook page.
- The Township completes site plan reviews and design guidelines and has development review procedures for new construction, replacement, relocation and substantial improvement in hazard areas within the Township.
- The Township incorporates the HMP risk assessment and hazard mitigation principles into comprehensive planning efforts and day-to-day operations of the Township.

## **OPPORTUNITIES FOR FUTURE INTEGRATION**

- **Firewise Program:** The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The application will be completed online (2021-Wantage-003).
- Flood Damage Prevention Ordinance Update: The Township will update its flood damage prevention ordinance to meet the New Jersey requirement of one foot of freeboard (2021-Wantage-004).
- **Disaster Debris Management Plan:** The Township will develop a debris management plan that will assist the municipality when they need to facilitate response and recovery after a debris-causing incident. The plan will provide direction to facilitate and coordinate the management of debris following a disaster (2021-Wantage-005).

## 9.25.5 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 Wantage'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 9.24-11 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.





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 <sup>rd</sup> and 24th.	Road closure; trees down
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.	Tax revenue, permits PPE supplies
August 4, 2020	Tropical Storm Isaias (declaration number pending)	Yes	Tropical Storm Isaias brought heavy rain to western New Jersey. Rainfall totals were as high as 3 to 5.5 inches. Observations from surrounding areas suggest sustained tropical storm force winds likely occurred.	Power loss /down. FEMA application still in process. (Under \$123,000- probably \$35K). Time for tree clearance, road closures, power outages. Power out for 2-3 days. Ran generators at town and firehouses. Vehicles

#### Table 9.25-11. Hazard Event History

Source: FEMA 2020, NOAA NCEI 2020

## 9.25.6 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 Wantage 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 Wantage 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 Wantage has significant exposure.

## **REPETITIVE FLOOD LOSSES**

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

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

Source: FEMA 2019 Note: The number of SRL properties excludes RL properties.

## **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 9.25-12. Critical Facilities and Lifelines Flood Exposure

			Expo	sure
	Name	Туре	1% Event	0.2% Event
	22-166 Herzenberg Dam	Dam	Х	Х
Source: Sussex C	ounty Planning Partnership 2020			

Note: \*Identified lifeline

### **IDENTIFIED ISSUES AND PROBLEM AREAS**

The jurisdiction has identified the community surrounding Lake Neepaulin as an area with frequently downed trees due to severe storms.

### 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 Wantage 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 Wantage. The Township of Wantage 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 Wantage indicated the following reasons why hazard rankings have changed since the 2016 HMP:

• The climate has increased the risk for wildfires in the Township since 2016.

## Table 9.25-13. Township of Wantage Hazard Ranking

Dam Failure	Disease Outbrea	ak Drought	Earthqu	ake		Flood	Geologic
Low	Low	Medium	Mediu	m		Low	Low
Hazardous Materials Medium	Hurricane and Tropical Invasive Storm Species Medium High		Nor'Easter High	Wea	rere ather	Severe Winter Weather High	Wildfire Medium

## 9.25.7 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 9.24-15 and Table 9.24-16 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.

			Status (In Progress, No Progress, Ongoing		the 2021 HMP odate?
2016 Act	tion Number Action Description	Responsible Party	Capability, or Completed)	Check if Yes	Enter 2021 HMP Action #
Wantage- 1 (new)	Ensure continuity of operations through back up power at critical facilities: purchase and install generators.	Township OEM	Completed (2 fire companies) using a FEMA mitigation grant (\$50,000).	-	-
Wantage- 2 (old #2)	Implement Fire Wise Program throughout the Township.	Township OEM	No Progress	Х	2021- Wantage-003
Wantage- 3 (old #3)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness. Place an article in the Municipal newsletter and update the municipal website linking to the County HMP page	Township OEM with support from County OEM	Ongoing Capability	-	-
Wantage- 4 (new)	Develop specific design guidelines and development review procedures for new construction, replacement, relocation and substantial improvement in hazard areas within the Township.	Township Administrator	Ongoing Capability	-	-
Wantage- 5 (new)	When updating the Zoning Ordinance, the Township will recognize hazard areas as limits on changes to zoning within the municipality.	Township Administrator	Ongoing Capability	-	-
Wantage- 6 (new)	Review the county HMP during the next update of the Township Master Plan.	Township Administrator	Ongoing Capability	-	-
Wantage- 7 (new)	Incorporate risk assessment and hazard mitigation principles into comprehensive planning efforts and day-to-day operations of the Township.	Township Administrator	Ongoing Capability	-	-

Table 9.25-14.	Status of Previous	<b>HMP Mitigation Actions</b>
	Status of Free Tous	in fingation netions

## PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE

The Township of Wantage 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 Wantage 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 9.24-15 summarizes the comprehensive-range of specific mitigation initiatives the Township of Wantage 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 9.24-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.





Table 9.25-15. 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- Wantage- 001	Backup Generator at Municipal Hall	Problem: The Wantage Township Town Hall is located at 888 State Highway 23. It serves as the town hall, EMS, and EOC. The existing generator is in need of replacement as it is reaching its life expectancy. Without a functioning generator, the town hall will not be able to function or operate during emergency situations. Solution: Working with the Township Engineer, identify the proper size generator for the town	Existing	All	2, 3, 6	Township Administration, OEM	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Township Budget	Continuity of operations to critical facilities and lifelines	\$125,000	Within 2 years	High	SIP	PP, ES
		hall. Once identified, purchase and install a permanent generator. <b>Problem:</b> During the current COVID-19 pandemic, the Township											
2021- Wantage- 002	PPE Stockpile	<ul> <li>pandemic, the Township did not have an adequate supply of personal protective equipment (PPE) for municipal staff.</li> <li>Without proper PPE, it puts municipal staff and residents at risk to the spread of infectious diseases.</li> <li>Solution: The Township will purchase PPE to create a stockpile for municipal staff. This will include gloves, masks, gowns, antibacterial handwash, antiviral cleaning solutions, sanitizers, and misters.</li> </ul>	N/A	Disease Outbreak	1, 2, 3, 6	Township OEM	BRIC, NJDCA, Township Budget, FEMA Assistance to Firefighters Grant	Increase protection from diseases; decrease risk of spread	\$50,000	Within 2 years	High	LPR	PR, ES



## Section 9.25 - Township of Wantage

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- Wantage- 003	Firewise Program	<ul> <li>Problem: The national Firewise USA®</li> <li>recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. The Township is currently not part of the Firewise program.</li> <li>Solution: The Township will follow the proper steps in applying for and becoming a Firewise community. This includes forming a board/committee, obtaining a wildfire risk assessment, developing an action plan, and hosting outreach events and programs. The application will be completed online.</li> </ul>	Both	Wildfire	1, 2, 3, 4, 5	Township OEM and Fire Department	Township Budget, Staff Time	Helps Township identify wildfire safety efforts; access to funding and assistance	\$10,000+	Within 5 years	Medium	LPR, EAP	PI, ES
2021- Wantage- 004	Update Flood Damage Prevention Ordinance	Problem: The Township's current flood damage prevention ordinance was last adopted in 2011. It currently does not have a freeboard requirement and does not meeting New Jersey's minimum requirement. Solution: The Township will update its flood damage prevention ordinance to meet the	New and Existing	Flood	1, 2	Township Administration, Engineer	Township budget, FEMA BRIC	Meet state standards, reduce future flood risk	Staff time	6 months	High	LPR	PR



### Section 9.25 - Township of Wantage

Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution New Jersey requirement of one foot of freeboard.	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- Wantage- 005	Develop Debris Management Plan	<ul> <li>Problem: The Township currently does not have an adopted debris management plan.</li> <li>Without a plan in place, there are no identified resources in place to properly address debris and do not have identified locations for debris storage.</li> <li>Solution: The Township will develop a debris management plan that will assist the municipality when they need to facilitate response and recovery after a debris-causing incident. The plan will provide direction to facilitate and coordinate the management of debris following a disaster.</li> </ul>	Existing	All hazards	3, 5, 6	OEM, Public Works	Township budget	Increased disaster capability and preparedness	Staff time	l year	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

#### Timeline:

The time required for completion of the project upon implementation

<u>Cost:</u>

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.



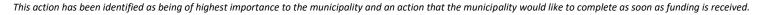


Aitigation Initiative Name	Life Safety	Property Protection	Cost Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total
kup Generator at nicipal Hall	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10

Table 9.25-16. Summary of Evaluation and Action Priorities

High / Initiative Ν 'n Medium Number / Low 2021-High Back Wantage-A Municipal Hall 2021-Wantage-PPE Stockpile High 2021-Wantage-Firewise Program Medium 2021-Update Flood Damage Wantage-High **Prevention Ordinance** 2021-Develop Debris Wantage-High Management Plan 

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





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

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

high ranked hazard ORANGE medium ranked hazard

YELLOW low ranked hazard





ORANGE COUNTY NEW YORK PIKE COUNTY PENNSYLVANIA Ó ORANGE COUNTY đ NEW YORK ALEMA Passaic County Warren Count Morris County 10 Miles Township of Township of Wantage Montague 📥 Airport Health/Medical Center Communication Facility Rolice Station Ki. Post Office Correctional Facility Potable Pump Station 🚸 DPW WTP Potable Water Treatment 🛕 Dam 😳 EMS Primary Education Religious Center EOC Secondary Education SUB Electrical Substation 4 Senior Center (F) Fire Station A Shelter Food Pantry Wastewater Pump Fuel W Wastewater Treatment Government Building  $\odot$ Well Alazardous Material Facility Municipal Boundary Hazard Area - Rail Line 1% Annual Chance Flood Event Township of Township Interstate Sandyston ofVernon 0.2% Annual Chance U.S. Route Flood Event State Route JUDGE BEACH RE **New Development** Waterbody Anticipated Recent **NFIP Repetitive Loss** Urban Flooding The map and data depicted are considered approximate and suitable for most planning The flood hazard area purposes. Mapped hazard areas, geographic depicted is the boundaries and other features depicted may September 29, 2011 not absolutely align due to the differing effective DFIRM. ownship of resolution of available data. rankford (94 Township of m Hardyston 20 Miles Township oroug Borough of Data Sources: NJDOT - 2017; NJ Geographic Information Network - 2014; SC GIS - 2020; DRBC - 2005; NJOGIS - 2020; ESRI 2002/2020; FEMA 2011 of Hambu of Lafayette Branchville

Figure 9.25-1. Township of Wantage Hazard Area Extent and Location Map 1

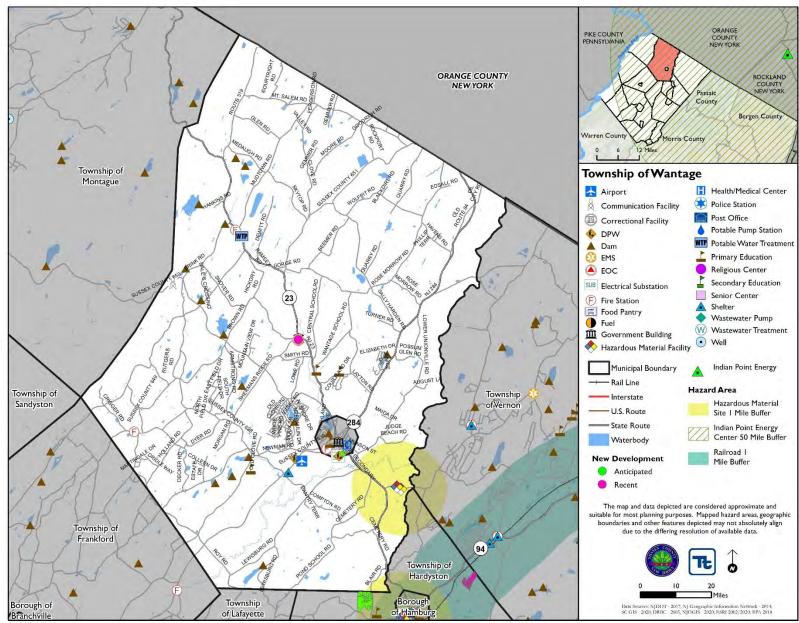


Figure 9.25-2. Township of Wantage Hazard Area Extent and Location Map 2

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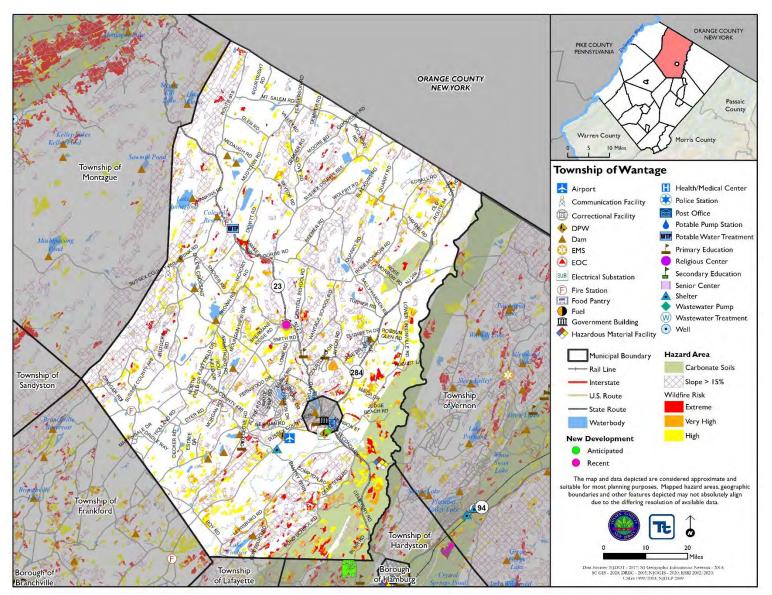


Figure 9.25-3 Township of Wantage Hazard Area Extent and Location Map 3



	А	ction W	orksheet	Ę	
Project Name:	Backup Generator at Municipal Hall				
Project Number:	2021-Wantage-001				
	Ri	sk / Vul	nerabilit	у	
Hazard(s) of Concern:	All Hazards				
Description of the Problem:	The Wantage Township Town Hall is located at 888 State Highway 23. It serves as the town hall, EMS, and EOC. The existing generator is in need of replacement as it is reaching its life expectancy. Without a functioning generator, the town hall will not be able to function or operate during emergency situations. Action or Project Intended for Implementation				
	Action or Projec	ct intend	aed for fr	nprementation	
Description of the Solution:	Working with the Township Engineer, identify the proper size generator for the town hall. Once identified, purchase and install a permanent generator.				
Is this project related to a C Lifeline?	ritical Facility or Yes		$\boxtimes$	⊠ No □	
Level of Protection:	N/A			ed Benefits avoided):	Continuity of operations to critical facilities and lifelines
Useful Life:	5 years		Goals Met:		2, 3, 6
Estimated Cost:	\$125,000		Mitigation Action Type:		Structure and Infrastructure Project
	Plan	for Imp	lementa		
Prioritization:	High		Desired Timeframe for Implementation:		Within 2 years
Estimated Time Required for Project Implementation:	Within 2 years		Potential Funding Sources:		FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Township Budget
Responsible Organization:	Township Administration, OEM		Local Planning Mechanisms to be Used in Implementation if any:		Hazard Mitigation
Three Alternatives Considered (including No Action)					
	Action		Es	timated Cost	Evaluation
Alternatives:	No Action Install solar panels on roof of town hall			\$0 \$20,000+	Current problem continues Weather dependent; maintenance costs
	Install wind turbine			\$10,000+	Weather dependent; maintenance costs
Progress Report (for plan maintenance)					
Date of Status Report:					
Report of Progress:					
Update Evaluation of the Problem and/or Solution:					





Action Worksheet				
Project Name:	Backup Generator at Municipal Hall			
Project Number:	2021-Wantage-001			
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate		
Life Safety	1	Provide continuity of operations and emergency services to residents		
Property Protection	1	Protect building from damages associated with power outages; provide continuity of operations		
Cost-Effectiveness	1			
Technical	1			
Political	1			
Legal	1	The Township has jurisdiction to implement this project		
Fiscal	0	Need grant funding		
Environmental	0	No environmental impacts		
Social	0	No social impacts		
Administrative	1	The Township has the administrative capabilities to implement this project		
Multi-Hazard	1	All hazards		
Timeline	1	To be completed within 2 years		
Agency Champion	1			
Other Community Objectives	0			
Total	10			
Priority (High/Med/Low)	High			





	A	ction W	orkshee	:	
Project Name:	PPE Stockpile				
Project Number:	2021-Wantage-002				
	e	sk / Vul	nerabilit	V	
Hazard(s) of Concern:	Disease Outbreak	on / va			
nazaru(s) or concern.					
Description of the Problem:	personal protective eq	During the current COVID-19 pandemic, the Township did not have an adequate supply of personal protective equipment (PPE) for municipal staff. Without proper PPE, it puts municipal staff and residents at risk to the spread of infectious diseases.			
	Action or Project	ct Intene	ded for Ir	nplementation	
Description of the Solution:	The Township will purchase PPE to create a stockpile for municipal staff. This will include gloves, masks, gowns, antibacterial handwash, antiviral cleaning solutions, sanitizers, and misters.				
Is this project related to a ( Lifeline?	Critical Facility or	Yes		No 🖂	
Level of Protection:	PPE			ed Benefits avoided):	Increase protection from diseases; decrease risk of spread
Useful Life:	Supply needs to be replaced after use		Goals Met:		1, 2, 3, 6
Estimated Cost:	\$50,000		Mitigation Action Type:		Local Plans and Regulations
	Plan	for Imp	lementa		
Prioritization:	High		Desired Timeframe for Implementation:		Within 2 years
Estimated Time Required for Project Implementation:	1 year		Potential Funding Sources:		BRIC, NJDCA, Township Budget, FEMA Assistance to Firefighters Grant
Responsible Organization:	Township OEM		Local Planning Mechanisms to be Used in Implementation if any:		Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)					
	Action		Estimated Cost		Evaluation
	No Action		\$0		Current problem continues
Alternatives:	Shut down during disease outbreak events			N/A	Loss of continuity of operations
	Rely on county/state/federal			\$0	Supply not guaranteed
	distribution				Supply not guaranteed
Progress Report (for plan maintenance)					
Date of Status Report:					
<b>Report of Progress:</b>					
Update Evaluation of the Problem and/or Solution:					





Action Worksheet				
Project Name:	PPE Stockpile			
Project Number:	2021-Wantage-002			
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate		
Life Safety	1	Protects life from disease outbreak		
Property Protection	0			
Cost-Effectiveness	1	Cost-effective project		
Technical	1	Technically feasible project		
Political	1			
Legal	1	The Township has the legal authority to conduct the project.		
Fiscal	0	Project will require funding support.		
Environmental	0			
Social	1	Project would help protect families from disease outbreak events		
Administrative	1			
Multi-Hazard	0	Disease Outbreak		
Timeline	1			
Agency Champion	1	OEM		
Other Community Objectives	1			
Total	10			
Priority (High/Med/Low)	High			

