



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).

Table 9.24-1. Hazard Mitigation Planning Team

Primary Point of Contact		Alternate Point of Contact
Name / Title: Victor Maglio, Mayor Address: 9 Main Street, Walpack Center, NJ 07881 Phone Number: 973-479-6976 Email: walpackmayor@gmail.com		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		
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		
Name	Title	Method of Participation
Victor Maglio, Mayor	Victor Maglio, Mayor	Primary point of contact, attended meetings, provided data and information on past impacts, contributed to the mitigation strategy
Michael Vreeland	Township Engineer, Van Cleef Engineering	Alternate point of contact, NFIP floodplain administrator

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: Walpack 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.

Table 9.24-2. Recent and Expected Future Development

Type of Development	2015		2016		2017		2018		2019	
Number of Building Permits for New Construction Issued Since the Previous HMP										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single and Two-Family Units	0	0	0	0	0	0	0	0	0	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
Recent Major Development and Infrastructure from 2015 to Present										
None identified										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None anticipated										

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

9.24.4 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-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized below. The Township of 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.

Table 9.24-3. Planning, Legal and Regulatory Capability

	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.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> • State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019 					
Zoning Code	Yes	State & Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> • State permissive on local level. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. 					
Subdivisions	Yes	County & Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> • P.L.1975, c.291 (C.40:55D-47); 40:55D-37. Grant of power; referral of proposed ordinance; county planning board approval a. The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one 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. 					
Stormwater Management	Yes	State & Local	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> • See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8 					
Post-Disaster Recovery	No	-	No	-	-





	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.
<i>Comment:</i>					
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	No	
<i>Comment: N.J.A.C. 13:45A-29.1 - Before signing a contract of sale, all purchasers must receive a New Jersey Public Offering Statement (POS) approved by the New Jersey Real Estate Commission. The POS provides information such as estimated completion dates for improvements, fees for services and amenities, the type of title and ownership interest being offered, its proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.</i>					
Growth Management	No	-	Yes – if municipality has a Planning Board	-	-
<i>Comment:</i>					
<ul style="list-style-type: none"> State Mandated on a municipal level. See Zoning Ordinance; Also - Plan Endorsement Process via the State Development & Redevelopment Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy. 					
Site Plan Review	Yes	County & Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> Dictated by the Municipal Land Use Law which sets forth minimum requirements for plans, etc., timeframes for development review. NJ Statute 40:27-6.2: The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance. 					
Environmental Protection	No	-	No	-	-
<i>Comment:</i>					
Flood Damage Prevention	Yes	State & Local	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In addition, participation in the NFIP requires a floodplain ordinance. Regulations for the Flood Control Hazards Act were adopted in 2007 and amended effective June 20, 2016. 					
Wellhead Protection	No	-	No	-	-
<i>Comment:</i>					
Emergency Management	No	-	No	-	-
<i>Comment:</i>					
Climate Change	No	-	No	-	-
<i>Comment:</i>					
Disaster Recovery Ordinance	No	-	No	-	-
<i>Comment:</i>					
Disaster Reconstruction Ordinance	No	-	No	-	-
<i>Comment:</i>					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Other	No	-	No	-	-
<i>Comment:</i>					
•					
Planning Documents					
Comprehensive / Master Plan	No	State & Local	Yes	No	-
<i>Comment:</i>					
<ul style="list-style-type: none"> 2018 Revised NJ Statute 40:27-2; the county planning board shall make and adopt a master plan for the physical development of the county. The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county. The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan and to advise the board of chosen commissioners with respect to the formulation of development programs and budgets for capital expenditures. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28 provides the required components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity. 					
Capital Improvement Plan	No	-	No	-	-
<i>Comment:</i>					
Disaster Debris Management Plan	No	-	No	-	-
<i>Comment:</i>					
Floodplain or Watershed Plan	No	-	No	-	-
<i>Comment:</i>					
Stormwater Management Plan	No	State & Local	Yes	-	-
<i>Comment:</i>					
<ul style="list-style-type: none"> The Stormwater Management rules (N.J.A.C. 7:8) rules were published in the February 2, 2004 NJ Register. These rules set forth the required components of regional and municipal stormwater management plans and establish the stormwater management design and performance standards for new (proposed) development. The design and performance standards for new development include groundwater recharge, runoff quantity controls, and runoff quality controls. The rules emphasize, as a primary consideration, the use of nonstructural stormwater management techniques including minimizing disturbance, minimizing impervious surfaces, minimizing the use of stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater runoff quantity control, stormwater runoff quality control, and the prohibition of major development to be located within or to discharge runoff from the major development into a 300-foot riparian zone without prior authorization from the Department under the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13. 					
Stormwater Pollution Prevention Plan	No	-	Yes	-	-
<i>Comment:</i>					
<ul style="list-style-type: none"> The Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program (NJPDES) rules (N.J.A.C. 7:14A) were published in the February 2, 2004, NJ Register. These NJPDES rules are intended to address and reduce pollutants associated with existing stormwater runoff. The NJPDES rules establish a regulatory program for existing stormwater discharges as required under the Federal Clean Water Act. These NJPDES rules govern the issuance of permits to entities that own or operate small municipal separate storm sewer systems, known as MS4s. Under this program, permits must be secured by municipalities, certain public complexes such as universities and hospitals, and State, interstate and federal agencies that operate or maintain highways. The permit program establishes the Statewide Basic Requirements that must be implemented to reduce nonpoint source pollutant loads from these sources. The Statewide Basic Requirements include measures such as: the adoption of ordinances (litter control, pet waste, wildlife feeding, proper waste disposal, etc.); the development of a municipal stormwater management plan and implementing ordinance(s); requiring certain maintenance activities (such as street sweeping and catch basin cleaning); implementing solids and floatables control; locating discharge points and stenciling catch basins; and a public education component. 					
Urban Water Management Plan	No	-	No	-	-
<i>Comment:</i>					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Habitat Conservation Plan	No	-	No	-	-
<i>Comment:</i>					
Economic Development Plan	No	-	No	-	-
<i>Comment:</i>					
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
<i>Comment:</i>					
<ul style="list-style-type: none"> NJ Coastal Area Facility Review Act (N.J.S.A. 13:19) or CAFRA regulates almost all development along the coast for activities including construction, relocation, and enlargement of buildings or structures, and excavation, grading, shore protection structures, and site preparation. This law is implemented through NJ's Coastal Zone management Rules N.J.A.C. 7:7E-1 et seq. 					
Community Wildfire Protection Plan	No	-	No	-	-
<i>Comment:</i>					
Community Forest Management Plan	No	-	No	-	-
<i>Comment:</i>					
Transportation Plan	No	-	No	-	-
<i>Comment:</i>					
Agriculture Plan	No	-	No	-	-
<i>Comment:</i>					
Climate Action Plan	No	-	No	-	-
<i>Comment:</i>					
Tourism Plan	No	-	No	-	-
<i>Comment:</i>					
Business Development Plan	No	-	No	-	-
<i>Comment:</i>					
Other	No	-	No	-	-
<i>Comment:</i>					
<ul style="list-style-type: none"> 					
Response/Recovery Planning					
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	No	-	Yes	-	-
<i>Comment:</i>					
<ul style="list-style-type: none"> Each county and municipality in the State shall prepare a written Emergency Operations Plan with all appropriate annexes necessary to implement the plan. Each Emergency Operations Plan shall be adopted no later than one year after the State Emergency Planning Guidelines have been adopted by the State Office of Emergency Management and shall be evaluated at such subsequent scheduled review of the State Emergency Operations Plan. L.1989, c.222, s.19. 					
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-
<i>Comment:</i>					
Post-Disaster Recovery Plan	No	-	No	-	-
<i>Comment:</i>					
Continuity of Operations Plan	No	-	No	-	-
<i>Comment:</i>					
Public Health Plan	No	-	No	-	-



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

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 with training in benefit/cost analysis	Yes	Township Engineer
Staff with training in green infrastructure	No	-





Staff/Personnel Resource	Available?	Department/Agency/Position
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
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	Yes – Community Notifications such as COVID-19





Criterion	Response
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 Walpack.

Table 9.24-8. 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.

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
Severe Weather	Moderate
Severe Winter Weather	Strong





Hazard	Adaptive Capacity (Capabilities) - Strong/Moderate/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.

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?*	0 policies
-What is the insurance in force?	\$0 insurance in force
-What is the premium in force?	\$0 premium in force
How many total loss claims have been filed in your jurisdiction?*	1 claim
-How many claims are still open or were closed without payment?	\$7,076 payments
-What were the total payments for losses?	
Do you maintain a list of properties that have been damaged by flooding?	No properties have been damaged in the past.
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 rd and 24 th .	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

Name	Type	Exposure	
		1% Event	0.2% Event
Haneys Mill Dam (No Dam)	Dam	X	X
No Name #59 Dam	Dam	X	X

Source: Sussex County Planning Partnership 2020

Note:

*Identified lifeline

IDENTIFIED ISSUES AND PROBLEM AREAS

The jurisdiction has identified the following vulnerabilities within their community:

- The Township 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.

Table 9.24-13. Township of Walpack Hazard Ranking

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

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

2016 Action Number Action Description		Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2021 HMP Update?	
				Check if Yes	Enter 2021 HMP Action #
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.	X	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
2020-Walpack-001	Municipal Building Backup Power	Problem: Backup power sources are necessary to maintain critical services for critical facilities. The Township Municipal Building requires a backup power source.	Existing	Severe Storm, Severe Winter Storm, Hurricane, Nor'Easter	1, 2, 6	Engineer, Emergency Manager	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget	Continuity of operations	\$50,000	Within 5 years	High	SIP	ES
		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.											
2020-Walpack-002	Relocate Power Lines	Problem: Downed trees often result in power loss in the Township during storm events.	Existing	Severe Storm, Severe Winter Storm, Hurricane, Nor'Easter	2	JCP&L, Township Administration, National Park Service	HMGP, BRIC, JCP&L	Reduction in power loss	High	Within 5 years	High	SIP	PP
		Solution: The Township will support JCP&L efforts to relocate power lines out of wooded areas to areas along roadways. This will reduce likelihood of falling trees resulting in power loss and increased capability for tree trimming.											
2020-Walpack-003	Low-lying Roadway Flooding	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). 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.	Existing	Severe Storm, Flood	2	National Park Service, Township Administration	HMGP, BRIC, National Park Service budget	Reduction in flood risk of roadways	TBD by engineering study	Within 5 years	High	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
2020-Walpack-004	Update Flood Damage Prevention Ordinance	Problem: The Township’s Flood Damage Prevention Ordinance is outdated and requires update.	New	Flood	2, 5	Administration	Township budget	Meet NFIP standards	Staff time	Within 6 months	High	LPR	PR
		Solution: 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.											
2020-Walpack-005	Floodplain Administrator Training	Problem: The Township Engineer is new to the role of Floodplain Administrator.	N/A	Flood	5	Administration	Township budget	Increased capability of FPA	Staff time	1 year	High	LPR	PR
		Solution: The Engineer will attend training for floodplain administration offered by FEMA and NJ DEP.											

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

Cost:

The estimated cost for implementation.

Benefits:

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

Mitigation Category:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses and preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities.

CRS Category:

- Preventative Measures (PR) - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.





- *Natural Resource Protection (NR) - Actions that minimize hazard loss and preserve or restore the functions of natural systems. Actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.*
- *Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.*
- *Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.*

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Table 9.24-16. 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
2020-Walpack-001	Municipal Building Backup Power	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High 
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

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.

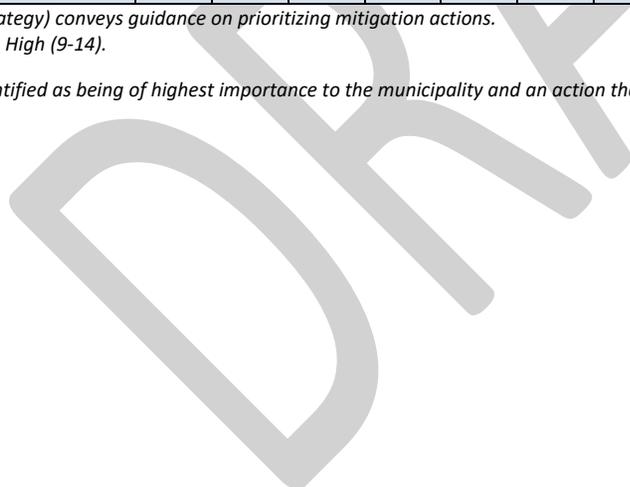




Table 9.24-17. Analysis of Mitigation Actions by Hazard and Category

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

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 9.24-1. Township of Walpack Hazard Area Extent and Location Map 1

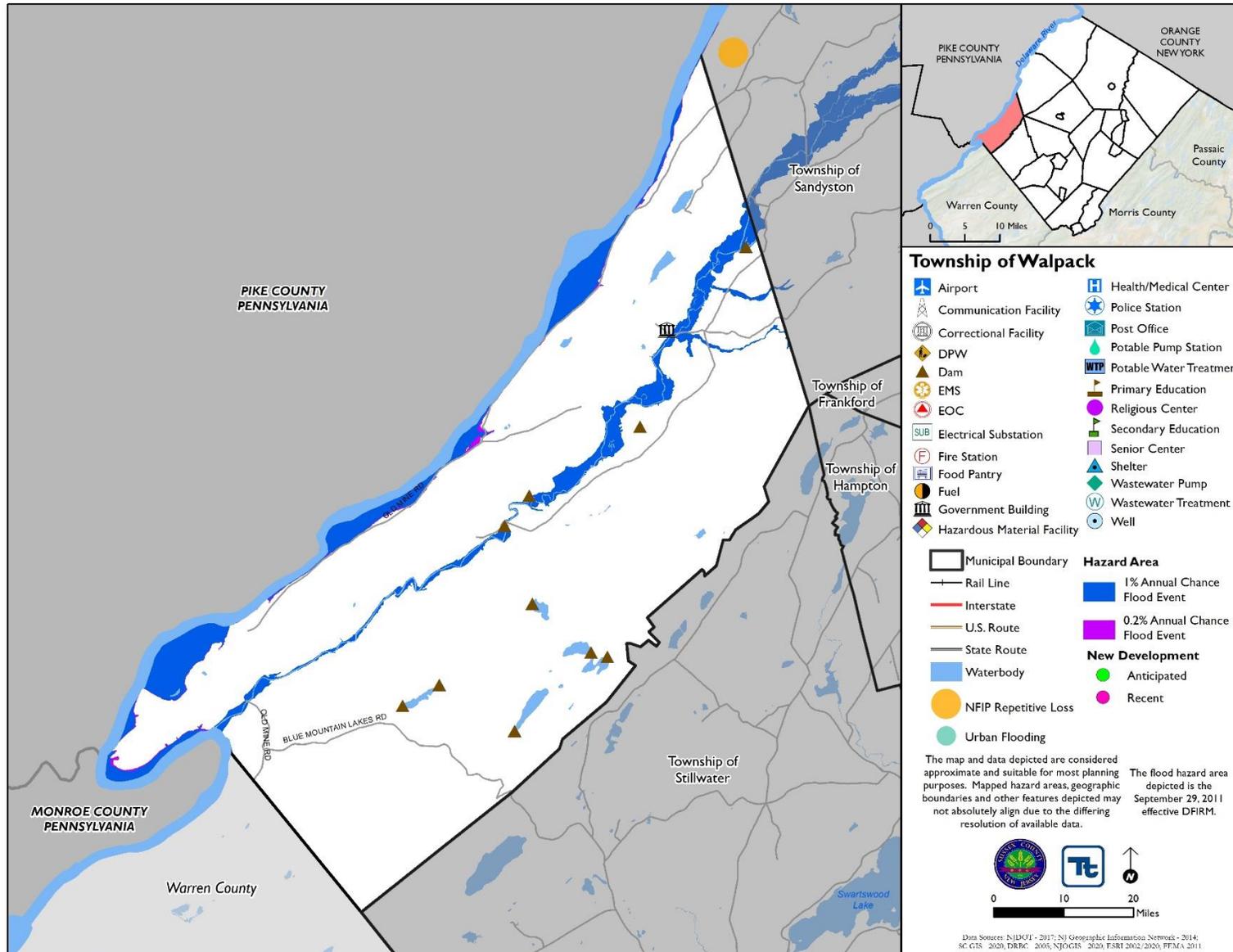




Figure 9.24-2. Township of Walpack Hazard Area Extent and Location Map 2

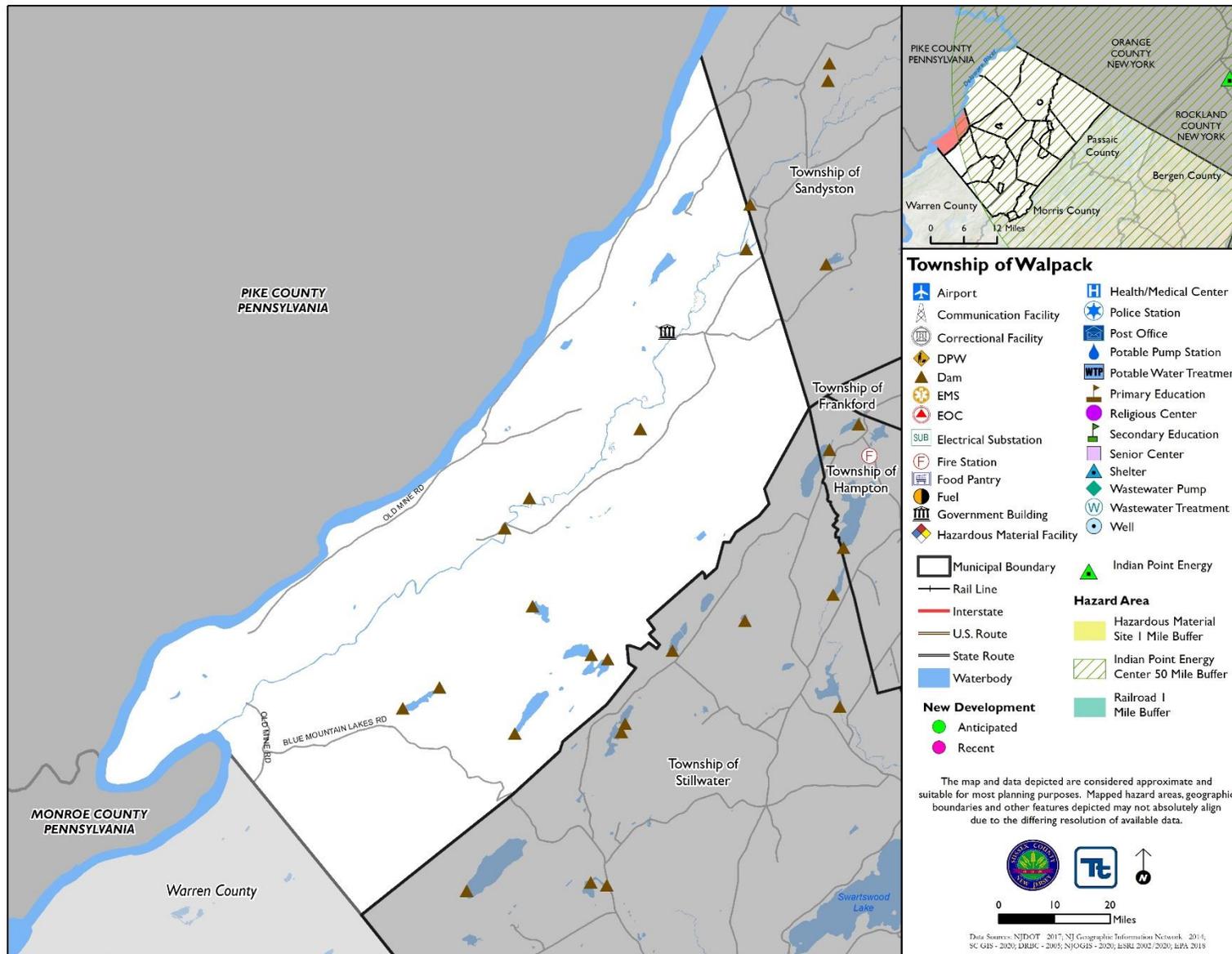
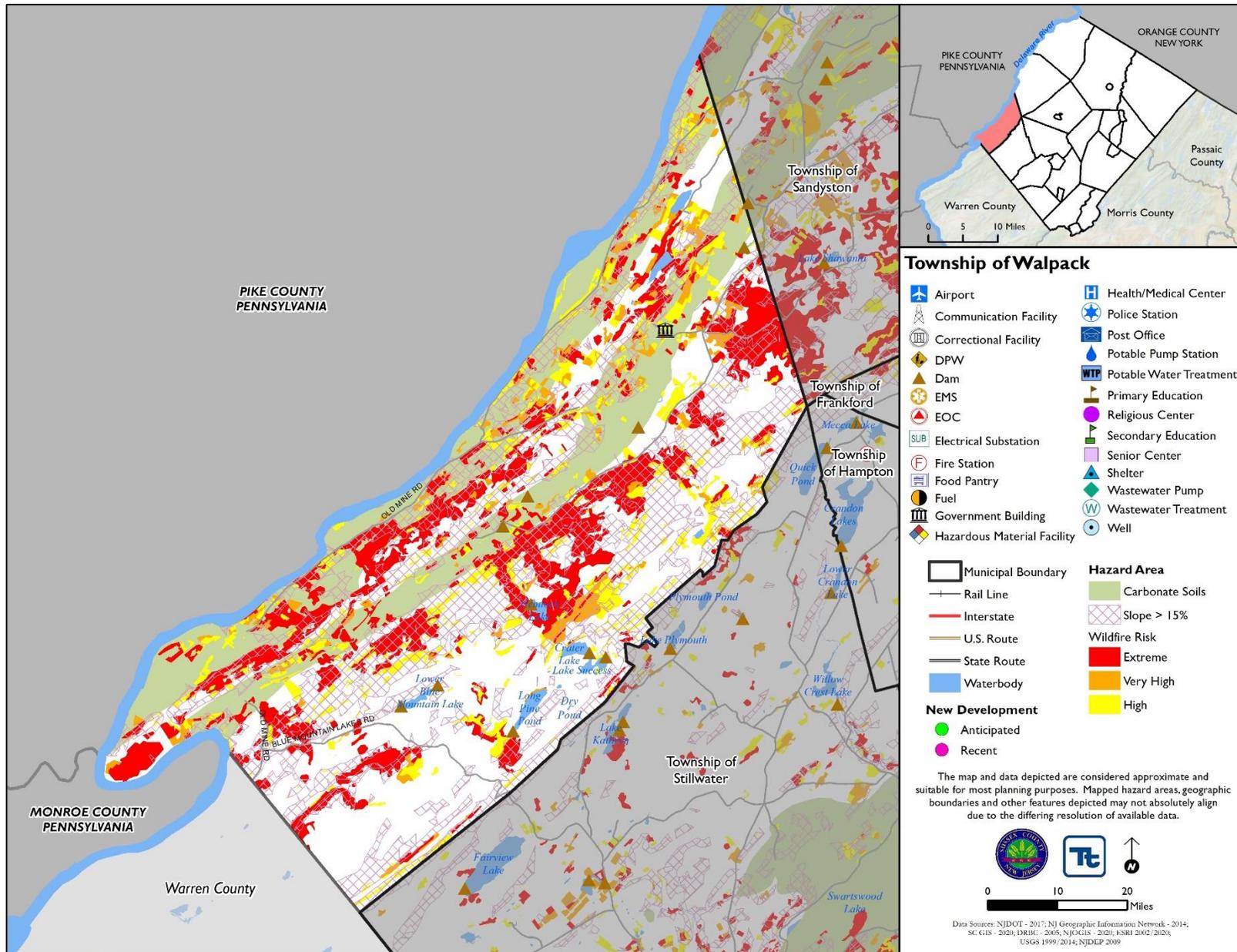




Figure 9.24-3 Township of Walpack Hazard Area Extent and Location Map 3





Action Worksheet			
Project Name:	Municipal Building Backup Power		
Project Number:	2020-Walpack-001		
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 Municipal Building requires a backup power source.		
Action or Project Intended for Implementation			
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 <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Ensures continuity of operations of DPW building
Useful Life:	20 years	Goals Met:	1, 2, 6
Estimated Cost:	\$50,000	Mitigation Action Type:	Structure and Infrastructure Projects (SIP)
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget
Responsible Organization:	Public Works	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Install solar panels	\$100,000	Weather dependent; need large amount of space for installation; expensive if repairs needed
	Install wind turbine	\$100,000	Weather dependent; poses a threat to wildlife; expensive repairs if needed
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Municipal Building Backup 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	



Action Worksheet			
Project Name:	Low-lying Roadway Flooding		
Project Number:	2020-Walpack-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the 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 the 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 Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	TBD by engineering study	Estimated Benefits (losses avoided):	Reduction in flood risk
Useful Life:	TBD by engineering study	Goals Met:	2
Estimated Cost:	TBD by engineering study	Mitigation Action Type:	Structure and Infrastructure Projects
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	5 years	Potential Funding Sources:	HMGP, BRIC, municipal budget
Responsible Organization:	National Park Service, Township Administration	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation planning, stormwater planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate roadways	\$500,000	Costly and may not solve problem
	Relocate roadways	N/A	Not possible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Low-lying Roadway Flooding	
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	