



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.

Table 9.14-1. Hazard Mitigation Planning Team

Primary Point 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@lafayettewp.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
Bill Macko	Road Foreman/Roads	Alternate point of contact
Debra Card	Zoning Officer/Zoning	NFIP Floodplain Administrator

9.14.2 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.





9.14.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction’s overall risk to its hazards of concern. Table 9.14-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. The figures at the end of this annex illustrate the geographically-delineated hazard areas and the location of potential new development.

Table 9.14-2. 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										
Multi-Family										
Other (commercial, mixed-use, etc.)										
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										
Not available at this time.										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
Not available at this time.										

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

9.14.4 Capability Assessment

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

Table 9.14-3. Planning, Legal and Regulatory Capability

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019 The Building Department and Construction Official are responsible for this code in compliance with State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.) and Chapter 8 – Building and Housing. 					
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> State permissive on local level. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. The Zoning Officer is responsible for this code in compliance with Chapter 13- Zoning. 					
Subdivisions	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> P.L.1975, c.291 (C.40:55D-47); 40:55D-37. Grant of power; referral of proposed ordinance; county planning board approval a. The governing body may by ordinance require approval of subdivision plats by resolution of the planning board as a condition for the filing of such plats with the county recording officer and approval of site plans by resolution of the planning board as a condition for the issuance of a permit for any development, except that subdivision or individual lot applications for detached one 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 12 – Land Use; Chapter 14 – Land Use Procedures. 					
Stormwater Management	Yes	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 The DPW is responsible for this ordinance in compliance with Chapter 21- Stormwater Control. 					
Post-Disaster Recovery	No	-	No	-	-
<i>Comment:</i>					
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	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.
<p>Comment: N.J.A.C. 13:45A-29.1 - Before signing a contract of sale, all purchasers must receive a New Jersey Public Offering Statement (POS) approved by the New Jersey Real Estate Commission. The POS provides information such as estimated completion dates for improvements, fees for services and amenities, the type of title and ownership interest being offered, its proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.</p>					
Growth Management	No	-	Yes – if municipality has a Planning Board	No	-
<p>Comment:</p> <ul style="list-style-type: none"> State Mandated on a municipal level. See Zoning Ordinance; Also - Plan Endorsement Process via the State Development & Redevelopment Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy. 					
Site Plan Review	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<p>Comment:</p> <ul style="list-style-type: none"> Dictated by the Municipal Land Use Law which sets forth minimum requirements for plans, etc., timeframes for development review. NJ Statute 40:27-6.2: The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance. The Site Plan Committee is responsible for these requirements in compliance with Chapter 12- Land Use. 					
Environmental Protection	Yes	Local	No	No	-
<p>Comment:</p> <ul style="list-style-type: none"> Chapter 10, Soil and Soil Removal sets the permitting and procedural requirements for soil removal and fill. 					
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	-
<p>Comment:</p> <ul style="list-style-type: none"> The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In addition, participation in the NFIP requires a floodplain ordinance. Regulations for the Flood Control Hazards Act were adopted in 2007 and amended effective June 20, 2016. The Construction Official is responsible for this ordinance in compliance with Chapter 17- Flood Damage Prevention. The ordinance was last updated in August 2020. 					
Wellhead Protection	No	-	No	-	-
<p>Comment:</p>					
Emergency Management	Yes	Local	No	-	-
<p>Comment:</p> <ul style="list-style-type: none"> Chapter 3 Police Regulations 					
Climate Change	No	-	No	-	-
<p>Comment:</p>					
Disaster Recovery Ordinance	No	-	No	-	-
<p>Comment:</p>					
Disaster Reconstruction Ordinance	No	-	No	-	-
<p>Comment:</p>					



	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 [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	No	Yes	-
Comment:					
<ul style="list-style-type: none"> These ordinances follow Ridgeline Preservation. 					
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
Comment:					
<ul style="list-style-type: none"> 2018 Revised NJ Statute 40:27-2; the county planning board shall make and adopt a master plan for the physical development of the county. The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county. The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan and to advise the board of chosen commissioners with respect to the formulation of development programs and budgets for capital expenditures. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28 provides the required components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity. The Planning Board is responsible for this plan, which was adopted in 2012. 					
Capital Improvement Plan	Yes	Local	No	Yes	-
Comment: The Township Committee is responsible for this plan, which is part of the municipal budget- put away funding for these projects; reviewed/ updated annually.					
Disaster Debris Management Plan	Yes/No	Yes/No	No	Yes/No	Yes/No
Comment:					
Floodplain or Watershed Plan	No	-	No	-	-
Comment:					
Stormwater Management Plan	Yes	Local	Yes	Yes	-
Comment:					
<ul style="list-style-type: none"> The Stormwater Management rules (N.J.A.C. 7:8) rules were published in the February 2, 2004 NJ Register. These rules set forth the required components of regional and municipal stormwater management plans and establish the stormwater management design and performance standards for new (proposed) development. The design and performance standards for new development include groundwater recharge, runoff quantity controls, and runoff quality controls. The rules emphasize, as a primary consideration, the use of nonstructural stormwater management techniques including minimizing disturbance, minimizing impervious surfaces, minimizing the use of stormwater pipes, preserving natural drainage features, etc. The rules also set forth requirements for groundwater recharge, stormwater runoff quantity control, stormwater runoff quality control, and the prohibition of major development to be located within or to discharge runoff from the major development into a 300-foot riparian zone without prior authorization from the Department under the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13. The Emergency Management/ Engineering Department is responsible for this plan, which is reviewed annually. 					
Stormwater Pollution Prevention Plan	Yes/No	If yes, who enforces?	Yes	Yes/No	Yes/No
Comment:					
<ul style="list-style-type: none"> The Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program (NJPDES) rules (N.J.A.C. 7:14A) were published in the February 2, 2004, NJ Register. These NJPDES rules are intended to address and reduce pollutants associated with existing stormwater runoff. The NJPDES rules establish a regulatory program for existing stormwater discharges as required under the Federal Clean Water Act. These NJPDES rules govern the issuance of permits to entities that own or operate small municipal separate storm sewer systems, known as MS4s. Under this program, permits must be secured by municipalities, certain public complexes such as universities and hospitals, and State, interstate and federal agencies that operate or maintain highways. The permit program establishes the Statewide Basic Requirements that must be implemented to reduce nonpoint source pollutant loads from these sources. The Statewide Basic Requirements include measures such as: the adoption of ordinances (litter control, pet waste, wildlife feeding, proper waste disposal, etc.); the development of a municipal stormwater management plan and implementing ordinance(s); requiring certain maintenance activities (such as street sweeping and catch basin cleaning); implementing solids and floatables control; locating discharge points and stenciling catch basins; and a public education component. 					
Urban Water Management Plan	Yes/No	Yes/No	No	Yes/No	Yes/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>					
Habitat Conservation Plan	Yes/No	Yes/No	No	Yes/No	Yes/No
<i>Comment:</i>					
Economic Development Plan	Yes	Local	No	Yes	-
<i>Comment: The Economic Development Subcommittee (Township Committee, Planning Board) are responsible for this plan. The subcommittee was created in 2015.</i>					
Shoreline Management Plan	Yes/No	If yes, who enforces?	Yes – if located in a coastal zone	Yes/No	Yes/No
<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	Yes/No	Yes/No	No	Yes/No	Yes/No
<i>Comment:</i>					
Community Forest Management Plan	Yes/No	Yes/No	No	Yes/No	Yes/No
<i>Comment:</i>					
Transportation Plan	Yes	Local	No	Yes	-
<i>Comment: This plan is included in the Master Plan.</i>					
Agriculture Plan	Yes/No	Yes/No	No	Yes/No	Yes/No
<i>Comment:</i>					
Climate Action Plan	Yes/No	Yes/No	No	Yes/No	Yes/No
<i>Comment:</i>					
Tourism Plan	Yes/No	Yes/No	No	Yes/No	Yes/No
<i>Comment:</i>					
Business Development Plan	Yes/No	Yes/No	No	Yes/No	Yes/No
<i>Comment:</i>					
Other: Open Space Plan	Yes	Local	No	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> The Open Space Commission and Township Committee are responsible for this plan, which is reviewed annually. 					
Response/Recovery Planning					
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> Each county and municipality in the State shall prepare a written Emergency Operations Plan with all appropriate annexes necessary to implement the plan. Each Emergency Operations Plan shall be adopted no later than one year after the State Emergency Planning Guidelines have been adopted by the State Office of Emergency Management and shall be evaluated at such subsequent scheduled review of the State Emergency Operations Plan. L.1989, c.222, s.19. The Office of Emergency Management is responsible for this plan, which was reviewed in 2013. 					
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes/No	Yes/No	No	Yes/No	Yes/No
<i>Comment:</i>					
Post-Disaster Recovery Plan	No	-	No	-	2020-Lafayette-007
<i>Comment:</i>					
Continuity of Operations Plan	Yes/No	Yes/No	No	Yes/No	Yes/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>					
Public Health Plan	Yes/No	Yes/No	No	Yes/No	Yes/No
<i>Comment:</i>					
Other	Yes/No	Yes/No	No	Yes/No	Yes/No
<i>Comment:</i>					

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/No
Does your jurisdiction have the ability to track permits by hazard area?	Yes/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/No

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/No	
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	Yes/No	
Staff with education/knowledge/training in low impact development	Yes/No	





Staff/Personnel Resource	Available?	Department/Agency/Position
Surveyor	Yes	Contracted when needed
Stormwater engineer	Yes/No	
Personnel skilled or trained in GIS applications	No	-
Local or state water quality professional	Yes/No	
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	
Watershed planner	Yes/No	
Environmental specialist	Yes/No	
Grant writers	Yes	Contracted
Resilience Officer	Yes/No	
Other: NFIP Floodplain Administrator	Yes	Construction Official
Other: Professionals trained in conducting damage assessments	Yes	Part of emergency management

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
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	Yes/No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes
Clean Water Act 319 Grants (Nonpoint Source Pollution)	Yes/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?	Yes/No
Do you have personnel skilled or trained in website development?	Yes/No
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	Yes/No
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	Yes/No





Criterion	Response
Do you have any citizen boards or commissions that address issues related to hazard mitigation? -If yes, briefly describe.	Yes/No
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, briefly describe.	Yes/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	?	?
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 9.14-9. 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.





- Does the municipality have access to resources to determine the possible impacts of climate change upon the municipality? Yes/No – if yes, describe briefly
- Is the administrative supportive of integrating climate change in policies or actions? Yes/No – if yes, describe briefly
- Is climate change already being integrated into current policies/plans or actions (projects/monitoring) within the municipality? Yes/No – if yes, describe briefly

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?	???
What is the date that your flood damage prevention ordinance was last amended?	???
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.	???
Do your flood hazard maps adequately address the flood risk within your jurisdiction? -If no, state why.	???
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

- Placeholder for areas of additional integration regarding committees/departments that tie to mitigation capability. Bulleted list.

OPPORTUNITIES FOR FUTURE INTEGRATION

- Placeholder for areas of integration regarding new/modified plans/ordinances, staffing, committees/departments, etc. which can be identified as mitigation actions. Bulleted list and identify mitigation action number.

9.14.5 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 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.

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
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 .	???
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.	???

Source: FEMA 2020, NOAA NCEI 2020

Note:

9.14.6 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 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

Name	Type	Exposure	
		1% Event	0.2% Event
22-15 Old Culvers Dam	Dam	X	X

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 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.

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

9.14.7 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 9.14-14. 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 #
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	Engineering via NFIP FPA with NJOEM, FEMA support	In Progress	X	2021-Lafayette-003





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 #
	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.				
Lafayette-2 (new)	Purchase and install generators at the following locations: <ul style="list-style-type: none"> Township municipal building Township elementary school	OEM, Township Committee	In Progress	X	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	X	2021-Lafayette-003
Lafayette-4 (new)	Perform regular drainage system maintenance throughout Township. Purchase Vac-All to assist with this maintenance program.	DPW	No Progress	X	2021-Lafayette-005
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	X	2021-Lafayette-004
Lafayette-6 (new)	Install, reroute and increase the capability of storm drainage systems throughout the Township.	DPW			
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			
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			
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			



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

- List any other mitigation projects you completed that were not identified in the 2016 plan

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 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-Lafayette-001	Municipal Building Backup Generator	Problem: 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		Engineer, Public Works	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget	Ensure continuity of operations of Municipal Building	\$35,000	Within 1 year	High	SIP	ES
		Solution: The Township will purchase and install a 65kW natural gas generator with transfer switch.											
2021-Lafayette-002	Fire Department Backup Generator	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.	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor' Easter		Engineer, Public Works, Fire Department	FEMA HMGP and BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget	Ensure continuity of operations of Fire Department	\$26,000	Within 1 year	High	SIP	ES
		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. When natural gas is extended to the Fire House building, the Township will modify the generator to allow for natural gas use.											
2021-Lafayette-003	Paulinskill Brook Flood Study	Problem: 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		Engineer	HMGP, BRIC, Township budget	Reduction in flooding, address	TBD by flood study	Within 5	High	SIP, NSP	SP, 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
		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. 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.						ing repetitive losses		years			
2021-Lafayette-004	Portable Generators and Water Pumps	Problem: Flooding of public areas, businesses, and resident homes requires Township assistance for response. 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.	Existing	Flood, Severe Storm		OEM, Public Works	Township budget	Increased capability of	\$10,000	Within 2 years	High	SIP	ES
2021-Lafayette-005	Vacuum Truck for Stormwater Cleaning	Problem: Traffic diversion caused by flooding and debris results in increased traffic on local roads, closed businesses, and displaced residents from homes 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.	Existing	Flood, Severe Storm		Public Works	Township budget	Storm water system kept functional	\$100,000	Within 5 years	High	SIP	SP
2021-Lafayette-006	Equipment for Storm Debris Response	Problem: 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		Public Works	Township budget	Increased storm response capabilities	\$100,000	Within 5 years	High	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
		Solution: 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-007	Expanding Township Capabilities	<p>Problem: 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.</p> <p>Solution: The Township will ensure prevent 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.</p>	Both	All Hazards		Administration, OEM	Township budget	Increased capabilities for hazard response	Staff time	Within 2 years	High	LPR	PR
2021-Lafayette-008	Expanding Township Disease Outbreak Capabilities	<p>Problem: The Township has limited capability to respond to disease outbreak events.</p> <p>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.</p>	N/A	Disease Outbreak		Administration, OEM	Township budget	Increased capabilities for disease outbreak response	Staff time	Within 6 months	High	LPR	PR

Notes:

Acronyms and Abbreviations:

CAV Community Assistance Visit
 CRS Community Rating System
 DPW Department of Public Works
 FEMA Federal Emergency Management Agency
 FPA Floodplain Administrator
 HMA Hazard Mitigation Assistance

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:





N/A Not applicable
 NFIP National Flood Insurance Program
 OEM Office of Emergency Management

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 9.14-16. 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-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

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 9.14-17. Analysis of Mitigation Actions by Hazard and Category

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

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

ORANGE medium ranked hazard

YELLOW low ranked hazard

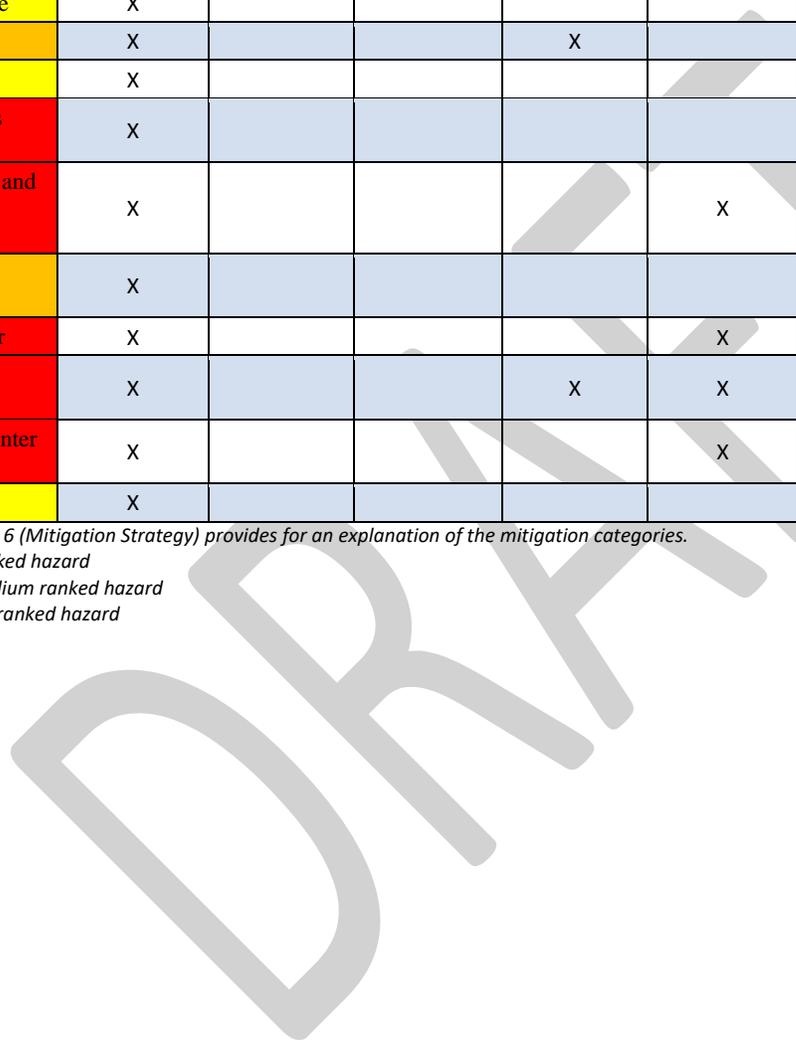




Figure 9.14-1. Township of Lafayette Hazard Area Extent and Location Map 1

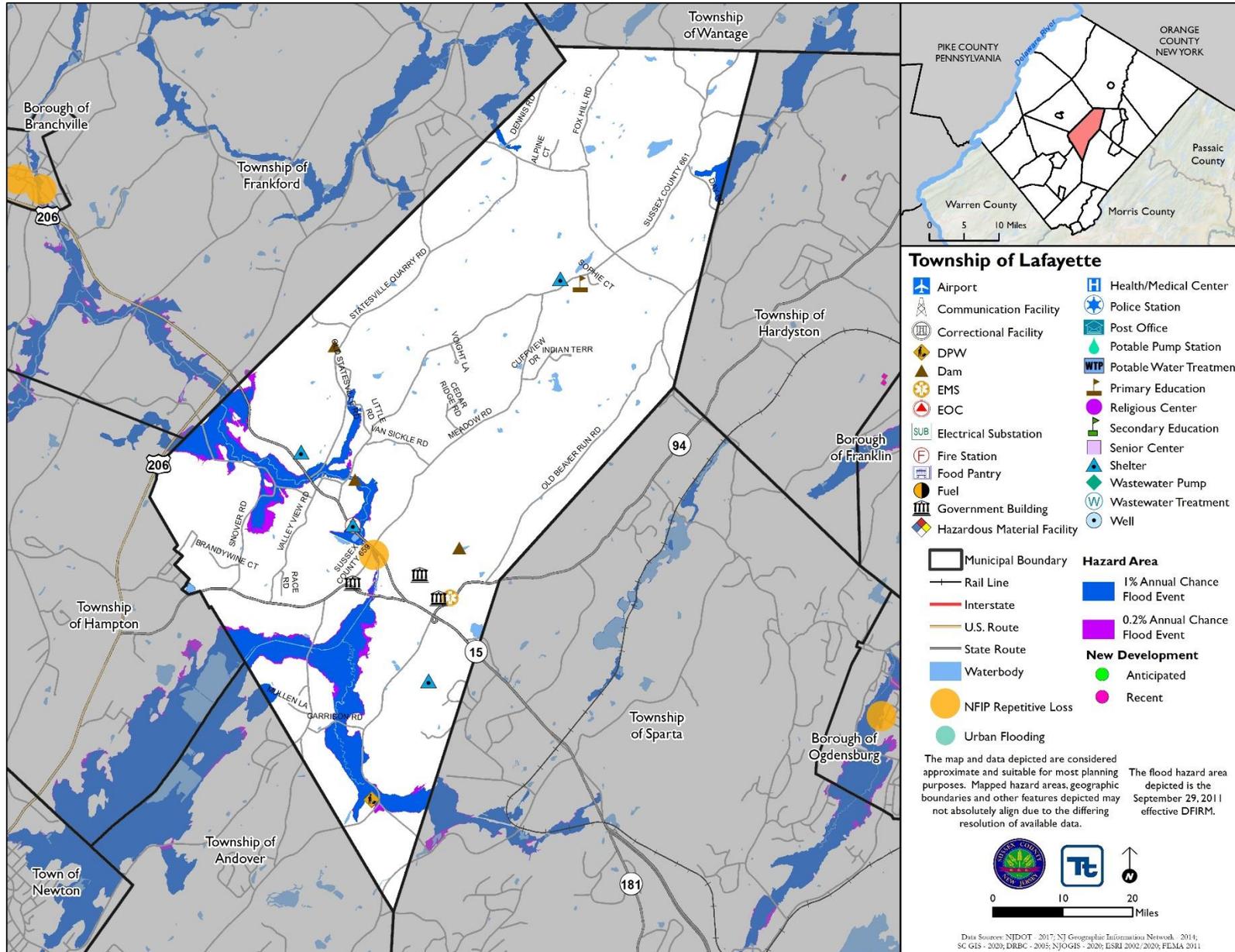




Figure 9.14-2. Township of Lafayette Hazard Area Extent and Location Map 2

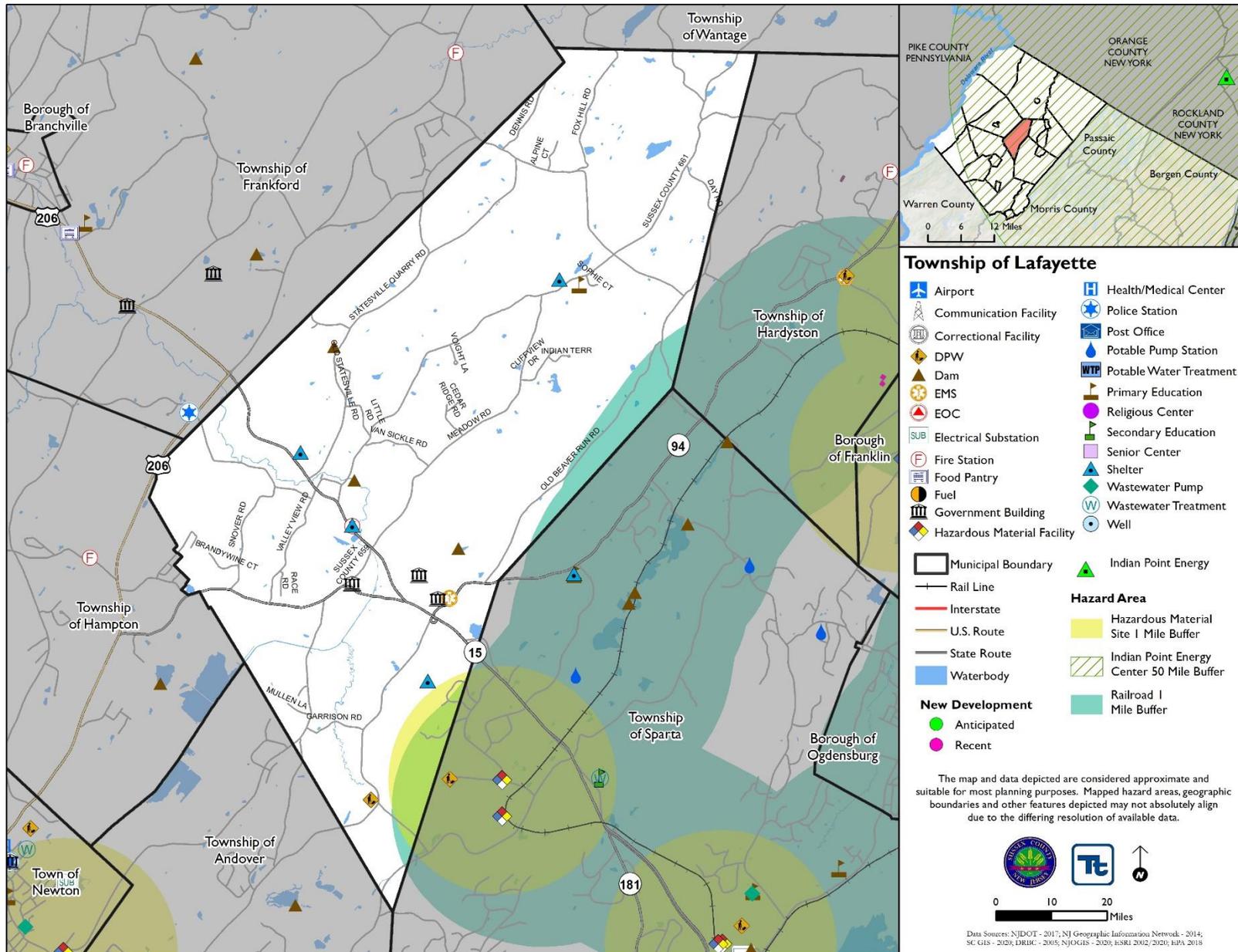
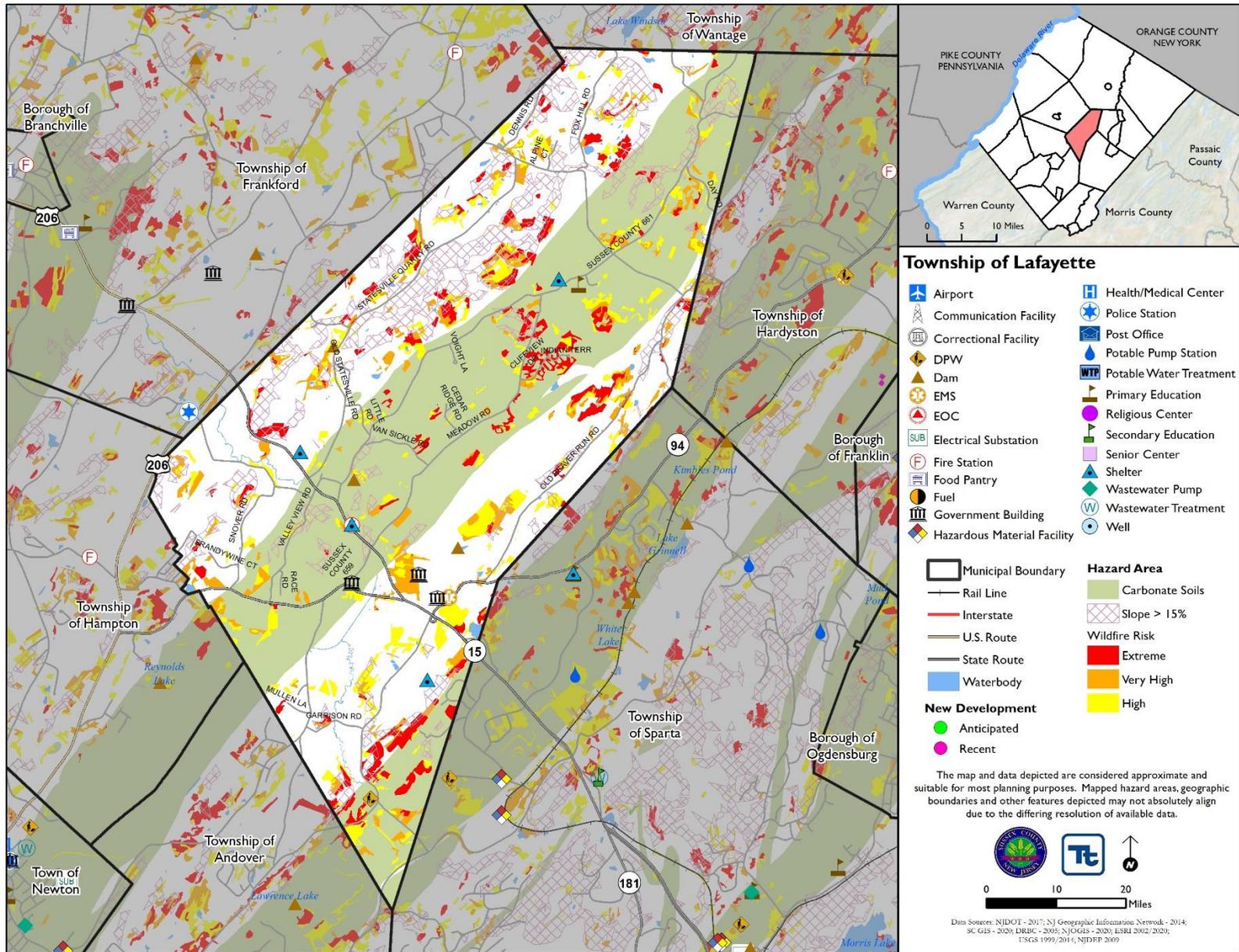




Figure 9.14-3 Township of Lafayette Hazard Area Extent and Location Map 3





Action Worksheet			
Project Name:	Municipal Building Backup Generator		
Project Number:	2020-Lafayette-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. 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 for Implementation			
Description of the Solution:	The Township will purchase and install a 65kW natural gas generator with transfer switch.		
Is this project related to a Critical Facility?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Level of Protection:	65kW	Estimated Benefits (losses avoided):	Ensures continuity of operations of Municipal Building
Useful Life:	20 years	Goals Met:	1, 3
Estimated Cost:	\$35,000	Mitigation Action Type:	Structure and Infrastructure Projects (SIP)
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 1 year
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, 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 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	



Action Worksheet			
Project Name:	Fire Department Backup Generator		
Project Number:	2020-Lafayette-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 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 for Implementation			
Description of the 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. When natural gas is extended to the Fire House building, the Township will modify the generator to allow for natural gas use.		
Is this project related to a Critical Facility?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Level of Protection:	40kW	Estimated Benefits (losses avoided):	Ensures continuity of operations of Fire Department
Useful Life:	20 years	Goals Met:	
Estimated Cost:	\$26,000	Mitigation Action Type:	Structure and Infrastructure Projects (SIP)
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 1 year
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, Public Works, Fire Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Install solar panels	\$100,000	Weather dependent; need large amount of space for installation; expensive if repairs needed
	Install wind turbine	\$100,000	Weather dependent; poses a threat to wildlife; expensive repairs if needed
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Fire 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	



Action Worksheet			
Project Name:	Paulinskill Brook Flood Study		
Project Number:	2020-Lafayette-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	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 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.		
Action or Project Intended for Implementation			
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 Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	TBD by flood study	Estimated Benefits (losses avoided):	Reduction in flooding, addressing repetitive losses
Useful Life:	TBD by flood study	Goals Met:	
Estimated Cost:	TBD by flood study	Mitigation Action Type:	Structure and Infrastructure Projects, Natural Systems Protection
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, Township budget
Responsible Organization:	Engineer	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
	Deepen Paulinskill Brook	\$500,000	Costly and unlikely to solve problem
	Remove Rt. 15 bridge	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:	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 Paulinskill 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	