



9.22 BOROUGH OF SUSSEX

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

9.22.1 Hazard Mitigation Planning Team

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

Table 9.22-1. Hazard Mitigation Planning Team

Primary Point of Contact		Alternate Point of Contact
Name / Title: Floyd Southard, OEM Coordinator Address: 2 Main Street, Sussex, NJ 07461 Phone Number: (973) 534-7258 Email: oem@sussexboro.com		Name / Title: Robert Regavich, Deputy OEM Address: 2 Main Street, Sussex, NJ 07461 Phone Number: (973) 271-2047 Email: rregavich@gmail.com
NFIP Floodplain Administrator		
Name / Title: Kevin Kervatt, Zoning Officer Address: 2 Main Street Sussex NJ 07461 Phone Number: (973) 875-4831 Email: zoning@sussexboro.com		
Name	Title	Method of Participation
Floyd Southard	OEM Coordinator	Primary point of contact, provided data and information, contributed to mitigation strategy; attended kickoff meeting, annex training, risk assessment meeting and mitigation strategy workshop; assisted with public outreach
Robert Regavich	Deputy OEM	Alternate point of contact; attended the kickoff meeting
Kevin Kervatt	Zoning Officer	NFIP floodplain administrator

9.22.2 Jurisdiction Profile

The Borough of Sussex is located in northern Sussex County and is fully surrounded by the Township of Wantage. It has a total area of 0.6 square miles. Clove Brook flows through the Borough.

According to the U.S. Census, the 2010 population for the Borough of Sussex was 2,130 The estimated 2018 population was 1,854, a 12 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 5.7 percent of the population is 5 years of age or younger and 12.6 percent is





65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.22.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction’s overall risk to its hazards of concern. Table 9.21-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. The figures at the end of this annex illustrate the geographically-delineated hazard areas and the location of potential new development.

Table 9.22-2. 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	1	0	0	0	0	0	0	0	0	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	0	0	0	0	0	0	0	0	0	0
Property or Development Name	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										
Shoprite	Grocery store and supporting business's	1		Block 104 lot 1.01 Block 105 lot 1.03 Block 106 lot 1.02		Nuclear Incident Hazard Area, Wildfire		Approved Beginning site work		

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

9.22.4 Capability Assessment

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

- An assessment of legal and regulatory capabilities
- Development and permitting capabilities
- An assessment of fiscal capabilities
- An assessment of education and outreach capabilities
- Information on NFIP compliance
- Classification under various community mitigation programs





- The community’s adaptive capacity for the impacts of climate change

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

PLANNING, LEGAL AND REGULATORY CAPABILITY

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

Table 9.22-3. Planning, Legal and Regulatory Capability

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
Codes, Ordinances, & Requirements					
Building Code	Yes	State & Local	Yes	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> • State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019 • This code follows State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.). 					
Zoning Code	Yes	Local	Yes – if municipality has a Planning Board	Yes	-
<i>Comment:</i>					
<ul style="list-style-type: none"> • State permissive on local level. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976, 40-55D-62: 49. Power to zone, requires all jurisdictions to have current zoning and other land development ordinances after the planning board has adopted the land use element and master plan. • The Zoning Officer is responsible for this code in compliance with Chapter 19, Zoning. • The ordinance notes the purpose of securing safety from fire, flood, panic, and other dangers. 					
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 18. 					
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 					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul style="list-style-type: none"> The Engineering Department is responsible for this ordinance. 					
Post-Disaster Recovery	No	-	No	-	-
Comment:					
Real Estate Disclosure	Yes	State, Division of Consumer Affairs	Yes	Yes	-
Comment: N.J.A.C. 13:45A-29.1 - Before signing a contract of sale, all purchasers must receive a New Jersey Public Offering Statement (POS) approved by the New Jersey Real Estate Commission. The POS provides information such as estimated completion dates for improvements, fees for services and amenities, the type of title and ownership interest being offered, its proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.					
Growth Management	No	-	Yes – if municipality has a Planning Board	-	-
Comment: <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	-
Comment: <ul style="list-style-type: none"> Dictated by the Municipal Land Use Law which sets forth minimum requirements for plans, etc., timeframes for development review. NJ Statute 40:27-6.2: The board of commissioners of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. 40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such an ordinance which affects lands adjoining county roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance. The Land Use Board is responsible for these requirements in compliance with Chapter 21. 					
Environmental Protection	Yes	Local	No	Yes	-
Comment: <ul style="list-style-type: none"> The Zoning Officer is responsible for this code in compliance with Chapter 19, Zoning. The ordinance notes the purpose “to promote the establishment of appropriate population densities and concentrations that will contribute to the well being of persons, neighborhood, communities and preservation of the environment” 					
Flood Damage Prevention	Yes	Federal, State & Local	Yes	Yes	2020-Borough of Sussex-006
Comment: <ul style="list-style-type: none"> The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In addition, participation in the NFIP requires a floodplain ordinance. Regulations for the Flood Control Hazards Act were adopted in 2007 and amended effective June 20, 2016. This ordinance follows Chapter 22- Flood Hazard Areas. It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to: <ul style="list-style-type: none"> Protect human life and health; Minimize expenditure of public money for costly flood control projects; Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; Minimize prolonged business interruptions; Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard; Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to 					





	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Have aspects of the HMP been integrated into your codes/ordinances/plans?	
				If yes- how? Describe in comments.	If no - add Mitigation Action #, if applicable.
<ul style="list-style-type: none"> ○ minimize future flood blight areas; ○ Ensure that potential buyers are notified that property is in an area of special flood hazard; and ○ Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. ● The ordinance currently lacks the state mandated freeboard requirement. 					
Wellhead Protection	No	-	No	-	-
<i>Comment:</i>					
Emergency Management	No	-	No	-	-
<i>Comment:</i>					
Climate Change	No	-	No	-	-
<i>Comment:</i>					
Disaster Recovery Ordinance	No	-	No	-	-
<i>Comment:</i>					
Disaster Reconstruction Ordinance	No	-	No	-	-
<i>Comment:</i>					
Other	No	-	No	-	-
<i>Comment:</i>					
Planning Documents					
Comprehensive / Master Plan	Yes	Local	Yes	Yes	-
<i>Comment:</i> <ul style="list-style-type: none"> ● 2018 Revised NJ Statute 40:27-2; the county planning board shall make and adopt a master plan for the physical development of the county. The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county. The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan and to advise the board of chosen commissioners with respect to the formulation of development programs and budgets for capital expenditures. Per State of NJ Municipal Land Use Law (MLUL) L. 1975, s. 2, eff Aug 1, 1976 40:55D-28 provides the required components of a municipal Master Plan and requires that each municipality prepare a master plan and update it every 6 years. Further, all zoning ordinances must be consistent with the Master Plan or will not be benefitted from a presumption of validity. ● The Planner is responsible for this plan, which was adopted on September 21, 2009. 					
Capital Improvement Plan	Yes	Local	No	Yes	-
<i>Comment:</i>					
Disaster Debris Management Plan	No	-	No	-	2020-Borough of Sussex-007
<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 					



	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>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.</i>					
Stormwater Pollution Prevention Plan	No	-	Yes	-	-
Comment:					
<ul style="list-style-type: none"> The Phase II New Jersey Pollutant Discharge Elimination System Stormwater Regulation Program (NJPDES) rules (N.J.A.C. 7:14A) were published in the February 2, 2004, NJ Register. These NJPDES rules are intended to address and reduce pollutants associated with existing stormwater runoff. The NJPDES rules establish a regulatory program for existing stormwater discharges as required under the Federal Clean Water Act. These NJPDES rules govern the issuance of permits to entities that own or operate small municipal separate storm sewer systems, known as MS4s. Under this program, permits must be secured by municipalities, certain public complexes such as universities and hospitals, and State, interstate and federal agencies that operate or maintain highways. The permit program establishes the Statewide Basic Requirements that must be implemented to reduce nonpoint source pollutant loads from these sources. The Statewide Basic Requirements include measures such as: the adoption of ordinances (litter control, pet waste, wildlife feeding, proper waste disposal, etc.); the development of a municipal stormwater management plan and implementing ordinance(s); requiring certain maintenance activities (such as street sweeping and catch basin cleaning); implementing solids and floatables control; locating discharge points and stenciling catch basins; and a public education component. 					
Urban Water Management Plan	No	-	No	-	-
Comment:					
Habitat Conservation Plan	No	-	No	-	-
Comment:					
Economic Development Plan	No	-	No	-	-
Comment:					
Shoreline Management Plan	No	-	Yes – if located in a coastal zone	-	-
Comment:					
<ul style="list-style-type: none"> NJ Coastal Area Facility Review Act (N.J.S.A. 13:19) or CAFRA regulates almost all development along the coast for activities including construction, relocation, and enlargement of buildings or structures, and excavation, grading, shore protection structures, and site preparation. This law is implemented through NJ's Coastal Zone management Rules N.J.A.C. 7:7E-1 et seq. 					
Community Wildfire Protection Plan	No	-	No	-	-
Comment:					
Community Forest Management Plan	No	-	No	-	-
Comment:					
Transportation Plan	No	-	No	-	-
Comment:					
Agriculture Plan	No	-	No	-	-
Comment:					
Climate Action Plan	No	-	No	-	-
Comment:					
Tourism Plan	No	-	No	-	-
Comment:					
Business Development Plan	No	-	No	-	-
Comment:					
Other Plans	No	-	No	-	-
Comment:					
Response/Recovery Planning					



	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.
Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)	Yes	Local	Yes	No	2020-Borough of Sussex-008
Comment:					
<ul style="list-style-type: none"> Each county and municipality in the State shall prepare a written Emergency Operations Plan with all appropriate annexes necessary to implement the plan. Each Emergency Operations Plan shall be adopted no later than one year after the State Emergency Planning Guidelines have been adopted by the State Office of Emergency Management and shall be evaluated at such subsequent scheduled review of the State Emergency Operations Plan. L.1989, c.222, s.19. The Office of Emergency Management is responsible for this plan. 					
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-
Comment:					
Post-Disaster Recovery Plan	No	-	No	-	-
Comment:					
Continuity of Operations Plan	No	-	No	-	-
Comment:					
Public Health Plan	No	-	No	-	-
Comment:					
	No	-	No	-	-
Comment:					

Table 9.22-4. Development and Permitting Capability

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

ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Table 9.22-5. Administrative and Technical Capabilities

Staff/Personnel Resource	Available?	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning & Zoning
Mitigation Planning Committee	No	-
Environmental Board / Commission	Yes	Shade Tree Commission
Open Space Board / Committee	No	-
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Administrator operates a Nixle alert system
Maintenance program to reduce risk	No	-



Staff/Personnel Resource	Available?	Department/Agency/Position
Mutual aid agreements	Yes	County
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Planner-Ken Nelson, Engineer-Harold Pellow
Engineers or professionals trained in building or infrastructure construction practices	Yes	Planner-Ken Nelson, Engineer-Harold Pellow
Planners or engineers with an understanding of natural hazards	Yes	Planner-Ken Nelson, Engineer-Harold Pellow
Staff with training in benefit/cost analysis	Yes	CFO
Staff with training in green infrastructure	No	-
Staff with education/knowledge/training in low impact development	No	-
Surveyor	No	-
Stormwater engineer	No	-
Personnel skilled or trained in GIS applications	No	-
Local or state water quality professional	No	-
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	OEM
Watershed planner	No	-
Environmental specialist	No	-
Grant writers	Yes	Bruno Associates
Resilience Officer	No	-
Other: NFIP Floodplain Administrator	Yes	Municipal Zoning Enforcement Officer – Kevin Kervatt
Other: Professionals trained in conducting damage assessments	Yes	Water Sewer Engineer

FISCAL CAPABILITY

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

Table 9.22-6. Fiscal Capabilities

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes (Special Assessments)
User Fees for Water, Sewer, Gas or Electric Service	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No
Other	No

EDUCATION AND OUTREACH CAPABILITY

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





Table 9.22-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes – Administrator as part of the Emergency Management Committee
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website? -If yes, briefly describe.	No
Do you use social media for hazard mitigation education and outreach? -If yes, briefly describe.	No
Do you have any citizen boards or commissions that address issues related to hazard mitigation? -If yes, briefly describe.	No
Do you have any other programs already in place that could be used to communicate hazard-related information? If yes, briefly describe.	No

COMMUNITY CLASSIFICATIONS

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

Table 9.22-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (Fire ISO Protection Class)	Yes	6	2016
Storm Ready Certification	No	-	-
Firewise Community Classification	No	-	-
Sustainable Jersey	No	-	-
Public Education Program/Outreach (through website, social media)	Yes	-	-

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 9.22-9. Adaptive Capacity

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



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

Notes:

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

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

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

NATIONAL FLOOD INSURANCE PROGRAM

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

Table 9.22-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Zoning
Who is your floodplain administrator? (name, department/position)	Kevin Kervatt/Zoning/Zoning Officer
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date that your flood damage prevention ordinance was last amended?	2011
Does your floodplain management program meet or exceed minimum requirements? -If exceeds, in what ways?	The program meets minimum requirements set by FEMA and the State.
When was the most recent Community Assistance Visit or Community Assistance Contact?	July 26, 1990
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? -If so, state what they are.	No
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? -If no, state why.	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? - If so, what type of assistance/training is needed?	The FPA indicated that there are barriers to running an effective floodplain management program due to lack of personnel. The FPA also stated that he does not feel adequately supported or trained to fulfill his role as the municipal floodplain administrator and that he would consider attending continuing education and/or certification training on floodplain management if it was





Criterion	Response
	mandatory.
Does your jurisdiction participate in the Community Rating System (CRS)? -If yes, is your jurisdiction interested in improving its CRS Classification? -If no, is your jurisdiction interested in joining the CRS program?	No
How many flood insurance policies are in force in your jurisdiction?*	4 policies
-What is the insurance in force?	\$1,910,000 in coverage
-What is the premium in force?	\$4,325 in premiums
How many total loss claims have been filed in your jurisdiction?*	4 claims
-How many claims are still open or were closed without payment?	\$65,202 in payments
-What were the total payments for losses?	
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	Yes

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

9.22.5 Hazard Event History Specific to the Jurisdiction

Sussex County has a history of hazard events, as detailed in Section 4 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles in Section 4.3 (Hazards of Concern) and includes a chronology of events that affected Sussex County and its jurisdictions. The Borough of Sussex’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Sussex County. Table 9.21-11 provides details regarding municipal-specific loss and damages the jurisdiction experienced during hazard events. Information provided in the table below is based on reference material or local sources.

Table 9.22-11. Hazard Event History

Date(s) of Event	Event Type (disaster declaration if applicable)	Sussex County Designated?	Summary of Event	Summary of Local Damages and Losses
January 22, 2016 - January 24, 2016	DR-4264: Severe Winter Weather and Snowstorm	Yes	A major nor'easter, produced record snowfall and blizzard conditions in parts of New Jersey on January 23 rd and 24 th .	Although the County was impacted, the Borough did not report damages.
January 20, 2020 and continuing	EM-3451, DR-4488: COVID-19 Pandemic	Yes	The coronavirus pandemic resulted in the need for shutdowns and social distancing and mask requirements.	Ongoing. PPE supplies purchased. Modified hours for the Borough Hall.

Source: FEMA 2020, NOAA NCEI 2020

9.22.6 Jurisdiction-Specific Vulnerabilities and Hazard Ranking

The hazard profiles in Section 4 (Risk Assessment) provide detailed information regarding each plan participant’s vulnerability to the identified hazards. Refer to Section 4.2 (Methodology and Tools) and Section 4.4 (Hazard Ranking) for a detailed summary for the Borough of Sussex risk assessment results and data used to determine the hazard ranking discussed later in this section.

HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps were generated for the Borough of Sussex that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the





preparation of this plan and are adequate for planning purposes. Maps have been generated only for those hazards that can be clearly identified using mapping techniques and technologies and for which the Borough of Sussex has significant exposure.

REPETITIVE FLOOD LOSSES

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

- Number of repetitive loss (RL) properties: 1
- Number of severe repetitive loss (SRL) properties: 0
- Number of RL/SRL properties that have been mitigated: 0

Source: FEMA 2019

Note: The number of SRL properties excludes RL properties.

CRITICAL FACILITIES AND LIFELINES

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

Table 9.22-12. Critical Facilities and Lifelines Flood Exposure

Name	Type	Exposure	
		1% Event	0.2% Event
JCP&L	Electrical Substation		X
Clove River Dam	Dam	X	X
DPW Garage/Sewer Department	DPW	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 Borough has aging equipment and limited manpower for a long duration winter storm.
- Borough Hall has no backup generator. It was not previously feasible to install until the Borough bought the lot next to the Borough Hall
- Firehouse is used as an EOC which leads to increased usage during a power outage.
- Clove River Dam is a flood risk. The County route and local road run over the Clove Brook which if flooded would take out two bridges that separate the Firehouse from the rest of the town. Flood risk could be reduced through stream bank stabilization surrounding confluence of Clove Brook and Papakating Creek.
- The DPW Garage/Sewer Department is in floodplain of Papakating Creek.
- The Borough has one repetitive loss property.

HAZARD RANKING

This section summarizes the jurisdiction’s primary hazards of concern based on identified problems, impacts and the results of the risk assessment as presented in Section 4 (Risk Assessment). The ranking process involves an assessment of the likelihood of occurrence for each hazard; its potential impacts on people,





property, and the economy; community capability and changing future climate conditions. This input supports the development of mitigation actions, targeting those hazards with the highest level of concern.

As discussed in Section 4.4 (Hazard Ranking), each plan participant may have differing degrees of risk exposure and vulnerability compared to Sussex County as a whole. Therefore, the Borough of Sussex ranked each hazard’s degree of risk as it pertains to their community factoring in their capabilities to withstand impacts and rebound after the event. The table below summarizes the hazard rankings of potential hazards for the Borough of Sussex. The Borough of Sussex has reviewed the Sussex County hazard ranking table and has provided input to its individual results to reflect the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Borough of Sussex agreed with the calculated hazard rankings.

Table 9.22-13. Borough of Sussex Hazard Ranking

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

9.22.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and provides action prioritization.

PAST MITIGATION INITIATIVE STATUS

The following table summarizes the jurisdiction’s progress on their mitigation strategy identified in the 2016 HMP. Actions that are carried forward as part of this plan update are included in Table 9.21-15 and Table 9.21-16 with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and can also be found under ‘Capability Assessment’ presented previously in this annex.

Table 9.22-14. 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 #
Sussex Boro-1 (old #1)	Stream bank stabilization, rip-wrap instillation surrounding confluence of Clove Brook and Papakating Creek.	DPW Manager	No Progress	X	2020-Borough of Sussex-005
Sussex Boro-2 (old #2)	Stream bank stabilization of town reservoir and feeder waterway to water treatment plant.	DPW Manager	No Progress	X	2020-Borough of Sussex-005
Sussex Boro-	Armoring of Lake Rutherford Dam located in High Point State	DPW Manager	In Progress	X	



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 #
3 (old #3)	Park.				
Sussex Boro-4 (old #4)	Armoring of Colesville Reservoir Dam located Brink Road	DPW Manager	In Progress	X	
Sussex Boro-5 (old #5)	Retrofit impact resistant windows and shutters on Sussex Fire Department building located on Loomis Avenue.	Station Commander	No Progress		
Sussex Boro-6 (old #6)	Retrofit impact resistant windows and shutters on Sussex Middle School located on Loomis Avenue	School Administration	No Progress		
Sussex Boro-7 (old #7)	Retrofit roof to meet current standards for snow load on original section of Sussex middle School located on Loomis Avenue.	School Administration	No Progress		
Sussex Boro-8 (old #8-10)	Ensure continuity of operations at critical facilities. The following were identified at this time: 1. Backup generator for shelter at Sussex Christian School located on Unionville Avenue 2. Backup generator for shelter at Emergency Operations Center located on Main Street. 3. Backup generator for shelter at Department of Public Works garage located on Brookside Avenue.	OEM Coordinator	In Progress; pursue generator for EOC and Borough Hall	X	2020-Borough of Sussex-001
Sussex Boro-9 (old #11)	Implement Fire Wise Program throughout the Borough.	OEM Coordinator	No Progress		
Sussex Boro-10 (old #12)	Flood-proofing of the Sussex Boro Fire Company building.	Municipal Fire Chief	No Progress		
Sussex Boro-11 (old #13)	Conduct all-hazards public education and outreach program for hazard mitigation and preparedness.	OEM Coordinator	Ongoing Capability		
Sussex	Raise sewer pumps	DPW	No Progress	X	2020-Borough



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 #
Boro-12 (new)					of Sussex-003
Sussex Boro-13 (new)	Sewer pumps and DPW garage floor	DPW Manager	No Progress	X	2020-Borough of Sussex-003

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

- None identified

PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE

The Borough of Sussex participated in a risk assessment workshop in October 2020 in which detailed information was provided about assets exposed and vulnerable to the identified hazards of concern. The Borough of Sussex participated in a mitigation action workshop in November 2020 and was provided a Mitigation Toolbox that included a mitigation catalog developed specifically for Sussex County and its hazards of concerns; challenges and opportunities identified during the capability and risk assessments; mitigation funding sources, and the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 *Selecting Appropriate Mitigation Measures for Floodprone Structures* (March 2007) and FEMA *Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards* (January 2013). Section 6 (Mitigation Strategy) and Appendix F (Mitigation Strategy Supplement) provide a more complete description of the Mitigation Toolbox and its resources.

Table 9.21-15 summarizes the comprehensive-range of specific mitigation initiatives the Borough of Sussex would like to pursue in the future to reduce the effects of hazards. Initiatives are dependent upon available funding (grants and local match availability) and can be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6 (Mitigation Strategy), 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing actions as *High, Medium, or Low*. The table below summarizes the evaluation of each mitigation initiative, listed by action number.

Table 9.21-16 provides a summary of the prioritization of all proposed mitigation initiatives for this HMP update.



Table 9.22-15. Proposed Hazard Mitigation Initiatives

Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
2020-Borough of Sussex-001	Backup Generator for Critical Facilities	<p>Problem: Backup power sources are necessary to maintain critical services for critical facilities. Borough Hall has no backup generator. It was not previously feasible to install until the Borough bought the lot next to the Borough Hall. In addition, the Firehouse is used as an Emergency Operations Center which leads to increased usage during a power outage.</p> <p>Solution: The Borough Engineer will research what size generator is needed to power the Borough Hall. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the Borough Hall.</p> <p>The Engineer will also review the generator in place at the Fire House to ensure that it has the capacity to support its use as an Emergency Operations Center. If the generator is lacking the capacity needed, the Borough will replace the generator with the correct sized generator.</p> <p>Public Works will be responsible for maintenance of generators.</p>	Existing	Severe Weather, Severe Winter Weather, Hurricane, Nor’Easter	1, 2, 3, 6	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 critical facilities	\$50,000	Within 5 years	High	SIP	ES
2020-Borough of Sussex-002	Repetitive Loss Mitigation	<p>Problem: The Borough has one repetitive loss property. There may be additional properties with high flood risk. These properties require mitigation to prevent future losses and prevent loss of life and property damage.</p> <p>Solution: The Borough will conduct outreach to the RL property owner and property owners that have high flood risk and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to</p>	Existing	Flood, Severe Weather	1, 2	NFIP Floodplain Administrator, supported by homeowners	FEMA HMGP and FMA, BRIC, local cost share by residents	Eliminates flood damage to homes and residents, creates open space for the municipi	\$200,000	3 years	High	SIP	PP



Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
		obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).						ality increasing flood storage .					
2020-Borough of Sussex-003	Raised Sewer Pumps at DPW	Problem: The DPW Garage/Sewer Department is in floodplain of Papakating Creek. Flooding is a concern.	Existing	Flood, Severe Weather	2, 6	Public Works	HMGP, BRIC, Borough budget	Reduction in flooding damages, continuity of operations	High	Within 5 years	High	SIP	PP
		Solution: The Borough will install and raise larger replacement sewer pumps along with an applicable sized backup generator and necessary electrical components.											
2020-Borough of Sussex-004	Increase Winter Storm Capabilities	Problem: The Borough has aging equipment and limited manpower for a long duration winter storm.	N/A	Severe Winter Weather	5, 6	Administration, DPW	Municipal budget	Increased winter storm capabilities	Low	Within 2 years	High	LPR	ES
		Solution: The Borough will work to secure funding for aging equipment and replace as necessary. The Borough will also explore shared services with other municipalities/county/state DPWs and establish agreements with private contractors for long duration storms.											
2020-Borough of Sussex-005	Streambank Stabilization	Problem: Clove River Dam is a flood risk. The County route and local road run over the Clove Brook which if flooded would take out two bridges that separate the Firehouse from the rest of the town.	N/A	Dam Failure, Flood, Severe Weather	2, 7	Administration	HMGP, BRIC, Borough budget	Reduction in flood risk	\$75,000	Within 5 years	High	NSP	NR
		Solution: The Borough will aim to reduce flood risk through stream bank stabilization surrounding confluence of Clove Brook and Papakating Creek.											
2020-Borough of Sussex-006	Flood Damage Prevention Ordinance	Problem: The Borough’s Flood Damage Prevention Ordinance lacks the state mandated freeboard requirement.	New and Existing	Flood	2	FPA, Administration	Borough budget	Meeting of state standards	Staff time	1 year	High	LPR	PR
		Solution: The Borough will adopt an updated version of the Flood Damage Prevention Ordinance which includes the state mandated freeboard requirement.											
2020-	Disaster Debris	Problem: The Borough lacks a Disaster	Existing.	All	2, 3,	OEM, DPW	Borough	Increases	Staff	1	High	LPR	ES





Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met	Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category	CRS Category
Borough of Sussex-007	Management Plan	Debris Management Plan. Solution: The Borough will develop and adopt a Disaster Debris Management Plan.		Hazards	5, 6		budget	ed emergency capabilities	time	year	h		
2020-Borough of Sussex-008	Update Emergency Operations Plan to Include Mitigation Integration	Problem: The Borough’s Emergency Operations Plan is due for update. The plan currently lacks information on hazard mitigation integration. Solution: The Borough will update the Emergency Operations Plan and increase the integration of hazard mitigation concepts and information derived from the HMP.	Existing	All Hazards	1, 2, 3, 4, 5, 6	OEM	Borough budget	Increased hazard mitigation integration and emergency capabilities	Staff time	Within 1 year	High	LPR	ES
2020-Borough of Sussex-009	Dam Armoring	Problem: Lake Rutherford Dam (located in High Point State Park) and Colesville Reservoir Dam (located on Brink Road) require upgrades to reduce the change of dam failure. The areas the dams are located in have experienced flooding in the past, heightening the chance of dam failure. Solution: The DPW manager will complete in progress efforts to armor Lake Rutherford Dam and Colesville Reservoir Dam.	Existing.	Dam Failure, Flood, Severe Weather	2, 7	DPW	HMGP, BRIC, FMA, High Hazard Potential Dam (HHPD) Grant, Borough budget	Addresses long term risk of dam failure	High	2 years	High	SIP	PP, SP

Notes:

Acronyms and Abbreviations:

- CAV Community Assistance Visit
- CRS Community Rating System
- DPW Department of Public Works
- FEMA Federal Emergency Management Agency
- FPA Floodplain Administrator
- HMA Hazard Mitigation Assistance
- N/A Not applicable
- NFIP National Flood Insurance Program
- OEM Office of Emergency Management

Potential FEMA HMA Funding Sources:

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

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

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

Mitigation Category:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.





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

CRS Category:

- *Preventative Measures (PR)* - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- *Property Protection (PP)* - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- *Public Information (PI)* - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- *Natural Resource Protection (NR)* - Actions that minimize hazard loss and preserve or restore the functions of natural systems. Actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- *Structural Flood Control Projects (SP)* - Actions that involve the construction of structures to reduce the impact of a hazard. Structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- *Emergency Services (ES)* - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.

DRAFT



Table 9.22-16. 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 Objectives	Total	High / Medium / Low
2020-Borough of Sussex-001	Backup Generator for Critical Facilities	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High ⚠
2020-Borough of Sussex-002	Repetitive Loss Mitigation	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2020-Borough of Sussex-003	Raised Sewer Pumps at DPW	0	1	1	1	1	1	0	1	1	1	1	0	1	1	11	High
2020-Borough of Sussex-004	Increase Winter Storm Capabilities	1	1	1	1	1	1	1	1	1	1	1	0	1	1	13	High
2020-Borough of Sussex-005	Streambank Stabilization	0	1	1	1	1	0	0	1	1	1	1	0	1	1	10	High
2020-Borough of Sussex-006	Flood Damage Prevention Ordinance	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2020-Borough of Sussex-007	Disaster Debris Management Plan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
2020-Borough of Sussex-008	Update Emergency Operations Plan to Include Mitigation Integration	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2020-Borough of Sussex-009	Dam Armoring	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High

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 9.22-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	Prevention	Property Protection	Public Education and Awareness	Natural Resource Protection	Emergency Services	Structural Projects	Climate Resilient	Community Capacity Building
Dam Failure		X		X	X	X	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
Invasive Species					X			X
Nor'Easter					X			X
Severe Weather		X		X	X	X		X
Severe Winter Weather					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

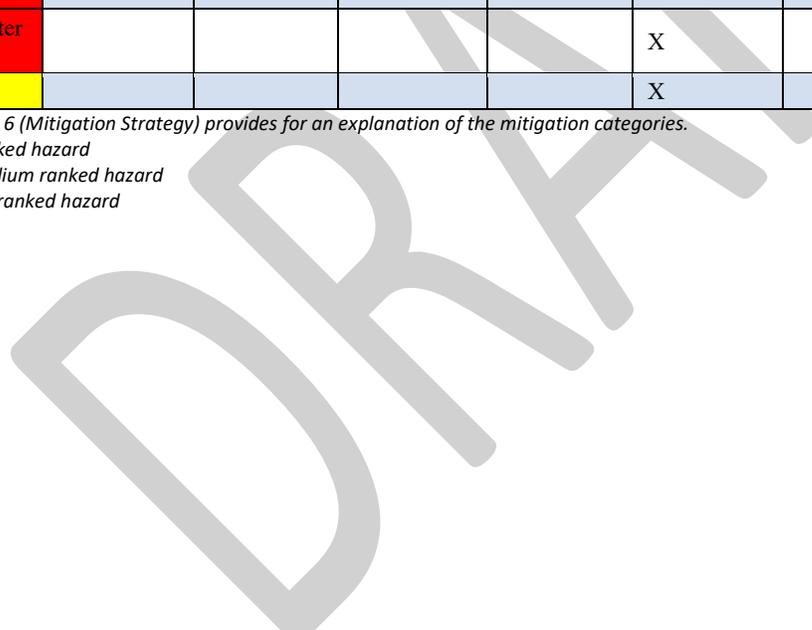




Figure 9.22-1. Borough of Sussex Hazard Area Extent and Location Map 1

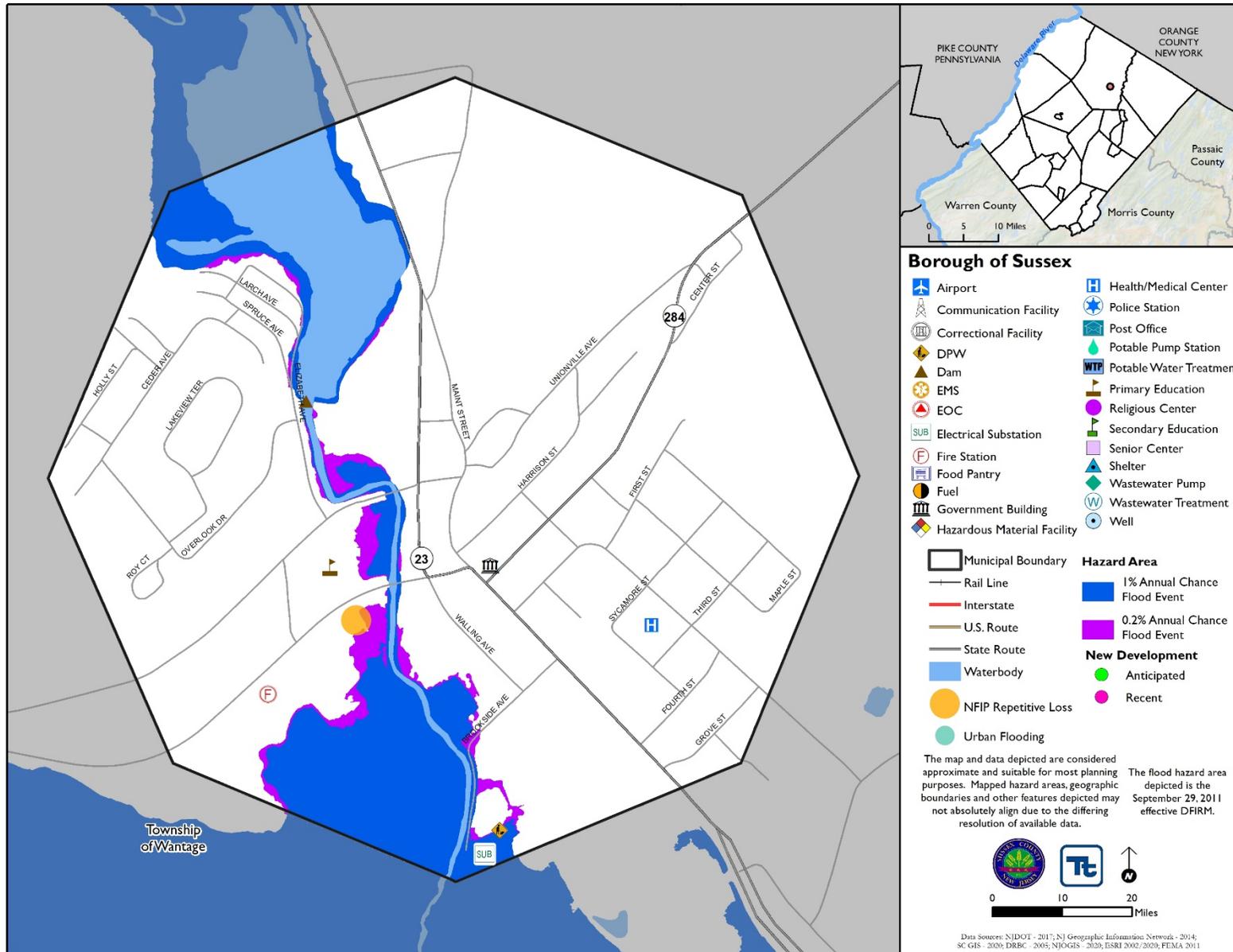




Figure 9.22-2. Borough of Sussex Hazard Area Extent and Location Map 2

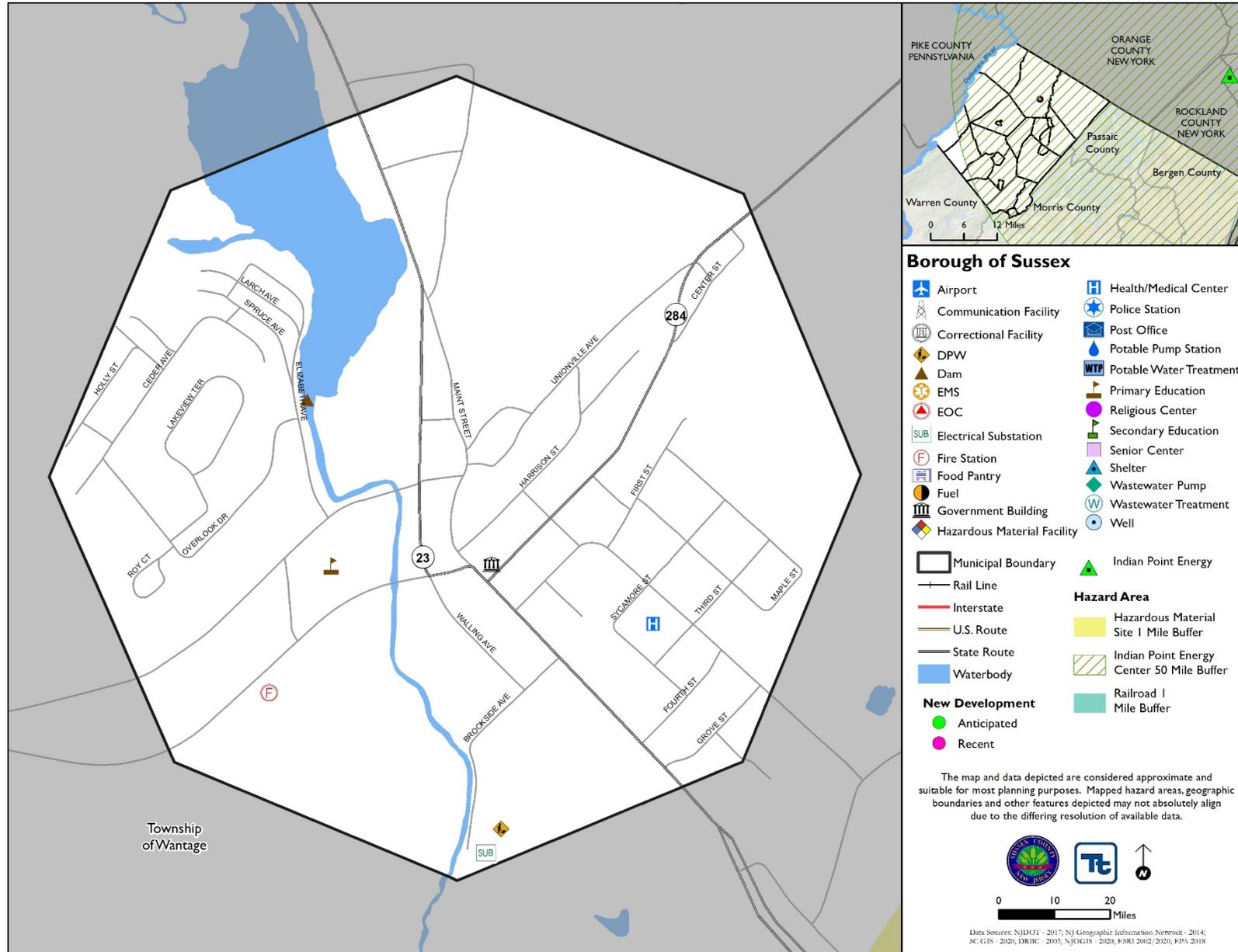
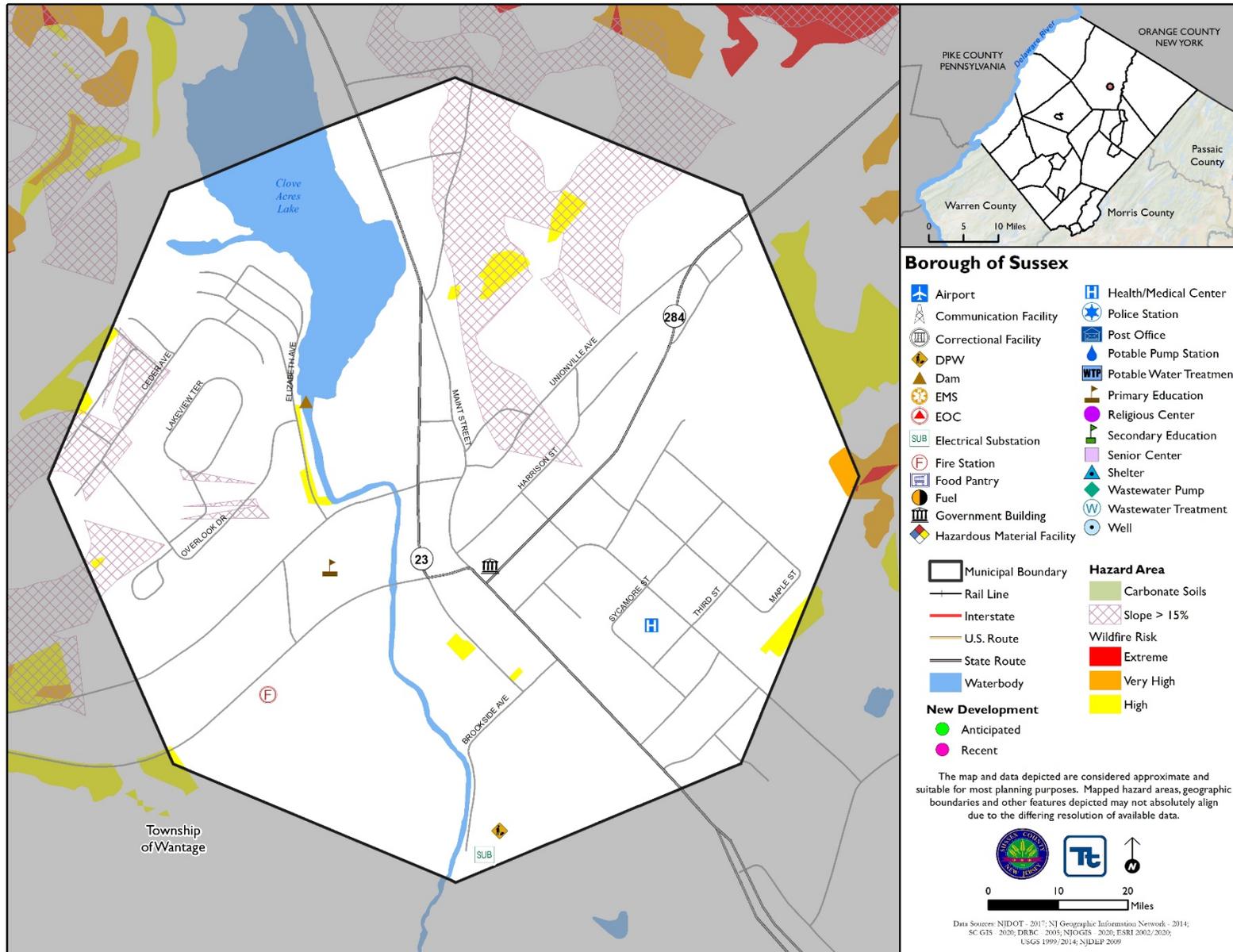




Figure 9.22-3 Borough of Sussex Hazard Area Extent and Location Map 3





Action Worksheet			
Project Name:	Backup Generator for Critical Facilities		
Project Number:	2020-Borough of Sussex-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. Borough Hall has no backup generator. It was not previously feasible to install until the Borough bought the lot next to the Borough Hall. In addition, the Firehouse is used as an Emergency Operations Center which leads to increased usage during a power outage.		
Action or Project Intended for Implementation			
Description of the Solution:	<p>The Borough Engineer will research what size generator is needed to power the Borough Hall. The Borough will then purchase and install the selected generator and necessary electrical components to supply backup power to the Borough Hall.</p> <p>The Engineer will also review the generator in place at the Fire House to ensure that it has the capacity to support its use as an Emergency Operations Center. If the generator is lacking the capacity needed, the Borough will replace the generator with the correct sized generator.</p> <p>Public Works will be responsible for maintenance of generators.</p>		
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 critical facilities
Useful Life:	20 years	Goals Met:	1, 2, 3, 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:	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:	Backup Generator for Critical Facilities	
Project Number:	2020-Borough of Sussex-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of Borough Hall and Fire House
Property Protection	1	Project will protect buildings from power loss.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Borough has the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Weather, Severe Winter Weather, Hurricane, Nor'Easter
Timeline	0	Within 5 years
Agency Champion	1	Engineer, Public Works
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Repetitive Loss Mitigation		
Project Number:	2020-Borough of Sussex-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather, Hurricane, Nor'easter, Climate Change and Sea Level Rise		
Description of the Problem:	The Borough has one repetitive loss property. There may be additional properties with high flood risk. These properties require mitigation to prevent future losses and prevent loss of life and property damage.		
Action or Project Intended for Implementation			
Description of the Solution:	The Borough will conduct outreach to the RL property owner and property owners that have high flood risk and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	1% annual chance flood event + freeboard (in accordance with flood ordinance)	Estimated Benefits (losses avoided):	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)	Goals Met:	1, 2
Estimated Cost:	\$200,000	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6-12 months
Estimated Time Required for Project Implementation:	Three years	Potential Funding Sources:	FEMA HMGP and FMA, BRIC, local cost share by residents
Responsible Organization:	NFIP Floodplain Administrator, supported by homeowners	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate homes	\$200,000	When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads
	Elevate roads	\$200,000	Elevated roadways would not protect the homes from flood damages
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Repetitive Loss Mitigation	
Project Number:	2020-Borough of Sussex-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Families moved out of high-risk flood areas.
Property Protection	1	Properties removed from high-risk flood areas.
Cost-Effectiveness	1	Cost-effective project
Technical	1	Technically feasible project
Political	1	
Legal	1	The Borough has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	0	Project would remove families from the flood prone areas of the Borough.
Administrative	0	
Multi-Hazard	1	Flood, Severe Weather, Hurricane, Nor'easter, Climate Change and Sea Level Rise, Severe Weather
Timeline	0	
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Raised Sewer Pumps at DPW		
Project Number:	2020-Borough of Sussex-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Weather		
Description of the Problem:	The DPW Garage/Sewer Department is in floodplain of Papakating Creek. Flooding is a concern.		
Action or Project Intended for Implementation			
Description of the Solution:	The Borough will install and raise larger replacement sewer pumps along with an appropriately sized backup generator and necessary electrical components. The pumps will be protected to the 500-year flood level.		
Is this project related to a Critical Facility?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	500-year flood level	Estimated Benefits (losses avoided):	Reduction in flooding damages, continuity of operations
Useful Life:	50 years	Goals Met:	2, 6
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	HMGP, BRIC, Borough budget
Responsible Organization:	Public Works	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Raise roadways in the area	\$250,000	Flooding likely to impact property owners
	Elevate homes in the area	\$3 million	Costly and roadways still flood
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Evaluation and Prioritization		
Project Name:	Raised Sewer Pumps at DPW	
Project Number:	2020-Borough of Sussex-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will protect sewer pumps from flooding
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	1	
Legal	1	The Borough is legally able to complete the project
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Weather
Timeline	0	Within 5 years
Agency Champion	1	Public Works
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Streambank Stabilization		
Project Number:	2020-Borough of Sussex-005		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Landslide		
Description of the Problem:	Clove River Dam is a flood risk. The County route and local road run over the Clove Brook which if flooded would take out two bridges that separate the Firehouse from the rest of the town.		
Action or Project Intended for Implementation			
Description of the Solution:	The Borough will aim to reduce flood risk through stream bank stabilization surrounding confluence of Clove Brook and Papakating Creek.		
Is this project related to a Critical Facility?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Landslide and flood risk reduced
Useful Life:	1 year	Goals Met:	2, 7
Estimated Cost:	\$75,000	Mitigation Action Type:	Natural Systems Protection
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	HMGP, BRIC, Borough budget
Responsible Organization:	Administration	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Retreat from areas near stream	High	Costly, unpopular
	Levees along stream	High	Not feasible/environmentally damaging, costly
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Streambank Stabilization	
Project Number:	2020-Borough of Sussex-005	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will protect properties from potential flood damage
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	0	Permitting likely required
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Dam Failure, Flood, Severe Weather
Timeline	0	
Agency Champion	1	Administration
Other Community Objectives	1	Restore natural floodplain function
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Dam Armoring		
Project Number:	2020-Borough of Sussex-009		
Risk / Vulnerability			
Hazard(s) of Concern:	Dam Failure, Flood, Severe Weather		
Description of the Problem:	Lake Rutherford Dam (located in High Point State Park) and Colesville Reservoir Dam (located on Brink Road) require upgrades to reduce the change of dam failure. The areas the dams are located in have experienced flooding in the past, heightening the chance of dam failure.		
Action or Project Intended for Implementation			
Description of the Solution:	The DPW manager will complete in progress efforts to armor Lake Rutherford Dam and Colesville Reservoir Dam.		
Is this project related to a Critical Facility or Lifeline?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Address long term risk of dam failure
Useful Life:	50 years	Goals Met:	2, 7
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	2 years
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	HMGP, BRIC, FMA, High Hazard Potential Dam (HHPD) Grant, Borough budget
Responsible Organization:	DPW	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Buyout properties downstream	High	High cost, high social impacts
	Remove Dam	High	Dams cannot be removed for safety reasons and water supply
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Dam Armoring	
Project Number:	2020-Borough of Sussex-009	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project protects life from dam failure
Property Protection	1	Project protects property from dam failure
Cost-Effectiveness	1	
Technical	1	
Political	1	There is public support for the project
Legal	1	The Borough has the legal authority to complete the project
Fiscal	0	The project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Dam Failure, Flood
Timeline	1	1
Agency Champion	1	DPW
Other Community Objectives	1	
Total	13	
Priority (High/Med/Low)	High	