



9.12 BOROUGH OF FLORHAM PARK

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

9.12.1 Hazard Mitigation Planning Team

The following individuals are the Borough of Florham Park’s identified HMP update primary and alternate points of contact and NFIP Floodplain Administrator.

Table 9.12-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name / Title: Daniel Bundschuh, Coordinator Address: 111 Ridgedale Avenue, Florham Park, New Jersey 07932 Phone Number: 973-410-5375 Email: dbundschuh@fppd.net	Name / Title: Joseph Orlando, Deputy Coordinator Address: 111 Ridgedale Avenue, Florham Park, New Jersey 07932 Phone Number: 973-410-5440 Email: jorlando@fppd.net
NFIP Floodplain Administrator	
Name / Title: Kayla Kaplan, Engineering Assistant Address: 111 Ridgedale Avenue, Florham Park, New Jersey 07932 Phone Number: 973-410-5334 Email: kkaplan@fpboro.net	

9.12.2 Jurisdiction Profile

The Borough of Florham Park is a small suburban municipality located in southeastern Morris County. The Borough is bordered to the south by the Boroughs of Madison and Chatham, to the north by the Townships of Hanover and East Hanover, to the west by Morris Township, and to the east by the Passaic River. The Borough is 7.6 square miles.

The Borough is a residential community with housing subdivisions radiating from a centrally located shopping district. The Borough contains a large engineering research center, several light industries and two colleges. Bodies of water in the Borough include the Passaic River, Spring Garden Brook, Black Brook, Hassock Brook, and Pinch Brook (FEMA FIS 2010).

According to the U.S. Census, the 2010 population for the Borough of Florham Park was 11,696. The estimated 2017 population was 11,792, a 0.8 percent increase from the 2010 Census. Data from the 2017 U.S. Census American Community Survey indicate that 4.9% of the population is 5 years of age or younger and 20.3% is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.12.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction’s overall risk to its hazards of concern. Table 9.12-2 summarizes recent and expected future development trends, including major





residential/commercial development and major infrastructure development. Figures 9.12-1 and 9.12-2 at the end of this annex illustrate the geographically-delineated hazard areas and the location of potential new development.

Table 9.12-2. 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					
Single Family	21	12	11	31	63
Multi-Family	-	-	-	-	-
Other (commercial, mixed-use, etc.)	-	5	-	-	5
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					
Sun Valley Apartments	Rental Apartments	21 apartment buildings	71 Passaic Ave.	NEHRP: D	Issued 2017
Supportive Housing	Supportive Housing	8 multi-tenant buildings	B:1401 L 1.09	-	Issued 2019
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years					
Pulte Del Webb	55 and over residential community	~400 units	B:1401 L:1.06	Pulte Del Webb	55 and over residential community

* Only location-specific hazard zones or vulnerabilities identified.

9.12.4 Capability Assessment

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

- 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 National Flood Insurance Program (NFIP) compliance.
- Classification under various community mitigation programs.
- The community’s adaptive capacity for the impacts of climate change.

PLANNING, LEGAL AND REGULATORY CAPABILITY

The table below summarizes the legal and regulatory tools that are available to the Borough of Florham Park.



Table 9.12-3. Planning, Legal and Regulatory Capability

Legal and Regulatory Capability					
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	State Mandated/Allowed	Has this been integrated? If yes- how?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
Codes, Ordinances, & Requirements					
Building Code	Yes	Local and State	Yes	No	No
<i>Comment: State mandated on local level under NJAC 5:23-3.14. International Building Code – New Jersey Edition, 2018, NJAC 5:24-3.14 Adopted 9/3/2019. State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.) Chapter 112.</i>					
Zoning Code	Yes	Local	Yes, if have planning board	No	No
<i>Comment: State permissive on local level. [note local ordinance # and date of adoption]. 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. Updated Regularly. Enforced by Zoning Officer, Chapter 250.</i>					
Subdivisions	Yes	Local	Yes, if have planning board	No	No
<i>Comment: P.L.1975, c.291 (C.40:55D-47): 40:55D-37. Grant of power; referral of proposed ordinance; county planning board approval. Dictated by the Municipal Land Use Law. NJ Statute 40:27-6.2 The board of freeholders 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. Enforced by Zoning, Chapter 212.</i>					
Stormwater Management	Yes	State and Local	Yes	No	No
<i>Comment: See Title 7 of the NJ Administrative Code, N.J.A.C. 7:8. Enforced by Engineering, Chapter 213.</i>					
Post-Disaster Recovery	No	-	No	-	-
<i>Comment:</i>					
Real Estate Disclosure	No	State	Yes	No	No
<i>Comment: 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 proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.</i>					
Growth Management	No	-	Yes, if have planning board	-	-
<i>Comment: State Mandated on a municipal level. See Zoning Ordinance. 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.</i>					
Shoreline Development	No	-	Yes	-	-
<i>Comment: NJ Coastal Area Facility Review Act (N.J.S.A. 13:19) or CAFRA regulates almost all development along the coast for activities including construction, relocation, and enlargement of buildings or structures, and excavation, grading, shore protection structures, and site preparation. This law is implemented through NJ's Coastal Zone Management Rules N.J.A.C. 7:7E-1 et seq.</i>					
Site Plan Review	Yes	Local	Yes, if have planning board	No	No
<i>Comment: Dictated by the Municipal Land Use Law which sets forth minimum requirements for plans, etc., timeframes for development review. NJ Statute 40:27-6.2: The board of freeholders of any county having a county planning board shall provide for the review of all subdivisions of land within the county by county planning board and for the approval of those subdivisions affecting county road or drainage facilities. 40:27-6.10: Each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality 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</i>					



Legal and Regulatory Capability					
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	State Mandated/Allowed	Has this been integrated? If yes- how?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<i>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. Enforced by Engineering/Planning Board, Chapter 212.</i>					
Environmental Protection	No	-	No	-	-
<i>Comment: The rules that are utilized by the NJ Department of Environmental Protection and other environmental agencies are codified at Title 7 of the NJ Municipal Administrative Code.</i>					
Flood Damage Prevention	Yes	Local	No	No	No
<i>Comment: The NJ State Law Flood Area Control Act (N.J.S.A. 58:16A-52) and the National Flood Control Act of 1968 (NFIP) are state and federal acts to support minimization of flood losses. They do not require local adoption but as enforced by the NJDEP, the floodplain ordinances of each municipality must be reviewed for compliance with these regulations. In addition, participation in the NFIP requires a floodplain ordinance. Enforced by Engineer, Chapter 215.14.</i>					
Wellhead Protection	Yes	-	No	-	-
<i>Comment: Delineation of well head protection areas (WHPAs) is part of the NJ-approved 1991 well head protection plan (WHPP) for public community water supply wells. These are priority areas for efforts to prevent and clean up ground water contamination. Municipalities are empowered to regulate land use, physical facilities and other activities within WHPAs areas, the potential for groundwater contamination can be reduced under the provisions of the New Jersey Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., which authorizes each municipality to plan and regulate land use to secure a safe and adequate drinking water supply for its residents. Also refer to Safe Drinking Water Regulations (NJAC 7:10-11.7(b)1).</i>					
Emergency Management	No	-	No	-	-
<i>Comment: Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years. See Emergency Operations Plans below.</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					
Master Plan	Yes	Who is responsible organization?	Yes	No	No
<i>Comment: Per NJS: Yes, if planning board (40:55D-28) and must be re-examined every ten years (40:55D-89.1); County: Yes (40:27-2). Enforced by Borough Planner, 2005. Updated annually; building addendum added in 2011, housing element to comply with COAH added in 2017.</i>					
Capital Improvement Plan	Yes	Local	Allowed	No	No
<i>Comment: Per NJS 40:55D-29) the governing body is authorized to direct the planning board to prepare a CIP with at least a six year planning horizon. Enforced by Borough Engineer, CFO, 2014.</i>					
Disaster Debris Management Plan	No	-	No	-	-
<i>Comment:</i>					



Legal and Regulatory Capability					
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	State Mandated/Allowed	Has this been integrated? If yes- how?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
Floodplain or Watershed Plan	No	-	No	-	-
<i>Comment: U.S. Army Corps of Engineers Regulatory Program Regulations (33 CFR 320-332)</i>					
Stormwater Management Plan	Yes	Local	Yes	No	No
<i>Comment: Per NJDEP Storm Water Management Rule (N.J.A.C. 7:8, et seq.). The Municipal Stormwater Regulation Program was developed in response to the U. S. Environmental Protection Agency's (USEPA) Phase II rules published in December 1999. The Department issued final stormwater rules on February 2, 2004 and four (4) NJPDES general permits authorizing stormwater discharges from Tier A and Tier B municipalities, as well as public complexes, and highway agencies that discharge stormwater from municipal separate storm sewers (MS4s). Enforced by Borough Engineer, SWPPP 2019, SWMP 2014. Annual updates provided to State. July 2008. http://www.fpboro.net/wp-content/uploads/2018/02/Stormwater-Management-Plan-Revised-07-08.pdf</i>					
Stormwater Pollution Prevention Plan	Yes	Local	Yes	No	No
<i>Comment: Per NJDEP Storm Water Management Rule (N.J.A.C. 7:8, et seq.). April 2019. http://www.fpboro.net/wp-content/uploads/2019/06/Stormwater-Pollution-Prevention-Plan.pdf</i>					
Urban Water Management Plan	No	-	No	-	-
<i>Comment:</i>					
Habitat Conservation Plan	No	-	No	-	-
<i>Comment: May develop a conservation plan element in master plan per NJSA 40:5D-28b (8).</i>					
Economic Development Plan	No	-	No	-	-
<i>Comment: Per NJSA 40:55D-28b. (9) There can be a generic Economic Development Element of the County Comprehensive Plan. Municipality can establish Economic Development Commission that can facilitate incentive programs (façade programs, low-interest loans, etc.)</i>					
Shoreline Management Plan	No	-	No	-	-
<i>Comment:</i>					
Community Wildfire Protection Plan	No	-	No	-	-
<i>Comment:</i>					
Community Forest Management Plan	Yes	-	No	-	-
<i>Comment: Optional accreditation for county and municipalities for reduction of liability, New Jersey Urban and Community Forestry Program (NJUCF).</i>					
Transportation Plan	No	-	No	-	-
<i>Comment: May develop a circulation plan element in master plan per NJSA 40:55D-28b. (4).</i>					
Agriculture Plan	No	-	No	-	-
<i>Comment: May develop a farmland preservation plan element per NJSA 40:5D-28b (13).</i>					
Climate Action Plan	No	-	No	-	-
<i>Comment: May develop a green building and environmental sustainability plan element per NJSA 40:5D-28b (16).</i>					
Tourism Plan	No	-	No	-	-
<i>Comment:</i>					
Business Development Plan	No	-	No	-	-
<i>Comment:</i>					





Legal and Regulatory Capability					
	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	State Mandated/Allowed	Has this been integrated? If yes- how?	
				If yes- how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
Other:	No	-	No	-	-
<i>Comment:</i>					
Response/Recovery Planning					
Emergency Operations Plan (EOP)	Yes	Local	Yes	No	No
<i>Comment: Per the NJ Civilian Defense and Disaster Control Act (App.A:9_43.2) Counties and municipalities must have written Emergency Operations Plans to be reviewed every 2 years. Enforced by OEM, All Hazard Plan, February 2014.</i>					
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	No	-	-
<i>Comment:</i>					
Post-Disaster Recovery Plan	No	-	No	-	-
<i>Comment:</i>					
Continuity of Operations Plan	No	-	No	-	-
<i>Comment:</i>					
Public Health Plan	No	-	No	-	-
<i>Comment:</i>					
Other	No	-	No	-	-
<i>Comment:</i>					

Table 9.12-4. Development and Permitting Capability

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

ADMINISTRATIVE AND TECHNICAL CAPABILITY

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

Table 9.12-5. Administrative and Technical Capabilities

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





Staff/Personnel Resource	Available?	Department/Agency/Position
Mitigation Planning Committee	Yes	Consists of several municipal departments
Environmental Board / Commission	Yes	Environmental Commission
Open Space Board / Committee	No	-
Economic Development Commission / Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Engineering, DPW, Police Department
Maintenance program to reduce risk	Yes	Engineering, DPW
Mutual aid agreements	Yes	Shared services with surrounding municipalities
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Borough Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Borough Engineer
Planners or engineers with an understanding of natural hazards	Yes	Borough Engineer
Staff with training in benefit/cost analysis	No	-
Staff with training in green infrastructure	Yes	Borough Engineer
Staff with education/knowledge/training in low impact development	Yes	Borough Engineer
Surveyor	Yes	Contracted out by borough annually
Stormwater engineer	No	-
Personnel skilled or trained in GIS applications	Yes	Building Department
Local or state water quality professional	Yes	Water Superintendent
Scientist familiar with natural hazards in local area	No	-
Emergency manager	Yes	OEM Coordinator
Grant writers	Yes	Internal departments write grants
Resilience Officer	No	-
Watershed planner	No	-
Environmental specialist	No	-
Other	No	-

FISCAL CAPABILITY

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

Table 9.12-6. Fiscal Capabilities

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





Financial Resource	Accessible or Eligible to Use?
Clean Water Act 319 Grants (Nonpoint Source Pollution)	No
Other	Yes, DEP Green Acres, Morris County Open Space

EDUCATION AND OUTREACH CAPABILITY

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

Table 9.12-7. Education and Outreach Capabilities

Criterion	Response
Do you have a public information officer or communications office?	Yes. Police Department
Do you have personnel skilled or trained in website development?	No Staff can update existing, vendor for development changes.
Do you have hazard mitigation information available on your website? • If yes, briefly describe.	No
Do you use social media for hazard mitigation education and outreach? • If yes, briefly describe.	Yes Facebook, Twitter, RAVE Alert Florham, Instagram
Do you have any citizen boards or commissions that address issues related to hazard mitigation? • If yes, briefly describe.	Yes Environmental Commission
Do you have any other programs already in place that could be used to communicate hazard-related information? • If yes, briefly describe.	Yes RAVE Alert Florham(reverse 911)
Do you have any established warning systems for hazard events? • If yes, briefly describe.	Yes RAVE Alert Florham(reverse 911), Register Ready link

COMMUNITY CLASSIFICATIONS

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

Table 9.12-8. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System	No	_____	Date
Building Code Effectiveness Grading Schedule (BCEGS)	No	_____	Date
Public Protection (Fire ISO Protection Class)	Yes	3	Unknown
Storm Ready Certification	No	_____	Date
Firewise Community Classification	No	_____	Date
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 Borough does not have access to resources to determine the possible impacts of climate change upon the municipality, nor does the administration supports integration of climate change in policies or actions. Climate change is not currently integrated into current policies, plans, or actions. The table below summarizes the adaptive capacity for climate change and the jurisdiction’s rating.

Table 9.12-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low
Dam Failure	Medium - have plan and rely on county OEM
Disease Outbreak	Medium
Drought	High (Ordinance for water usage restrictions.)
Earthquake	Medium
Extreme Temperature	Medium
Flood	Medium
Geological Hazards	Medium
Harmful Algal Bloom	Low
Hazardous Materials	High
Infestations	Medium
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

Notes:

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

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

NATIONAL FLOOD INSURANCE PROGRAM

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

Table 9.12-10. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Engineering
Who is your floodplain administrator? (name, department/position)	Engineering/Asst. Engineer
Are any certified floodplain managers on staff in your jurisdiction?	Yes
What is the date that your flood damage prevention ordinance was last amended?	5/15/01
Does your floodplain management program meet or exceed minimum requirements? • If exceeds, in what ways?	Meets
When was the most recent Community Assistance Visit or Community Assistance Contact?	n/a
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.	Yes Morris County maps are in appeal
Do your flood hazard maps adequately address the flood risk within your jurisdiction? • If no, state why.	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program?	No





Criterion	Response
<input type="checkbox"/> If so, what type of assistance/training is needed?	n/a
Does your jurisdiction participate in the Community Rating System (CRS)?	No
• If yes, is your jurisdiction interested in improving its CRS Classification?	n/a
• If no, is your jurisdiction interested in joining the CRS program?	Yes
How many flood insurance policies are in force in your jurisdiction?*	70
• What is the insurance in force?	\$26,855,000
• What is the premium in force?	\$72,257
How many total loss claims have been filed in your jurisdiction?*	8
• How many claims are still open or were closed without payment?	0 Open, 4 Closed without payment
• What were the total payments for losses?	\$68,795
Do you maintain a list of properties that have been damaged by flooding?	No
Do you maintain a list of property owners interested in flood mitigation?	No

* Policies and Claims from <https://bsa.nfipstat.fema.gov/reports/1011.htm> and <https://bsa.nfipstat.fema.gov/reports/1040.htm> as of 09/30/2018

ADDITIONAL AREAS OF EXISTING INTEGRATION

In the performance period since adoption of the 2015 HMP, the Borough Administration worked with support from County, NJOEM, FEMA and surrounding communities worked to create, enhance, and maintain mutual aid agreements with neighboring communities for continuity of operations.

9.12.5 Hazard Event History Specific to the Jurisdiction

Morris 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 4.4 (Hazard Profiles) and includes a chronology of events that affected Morris County and its jurisdictions. The Borough of Florham Park’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Morris County. Table 9.12-11 provides details regarding municipal-specific loss and damages the Borough experienced during hazard events. Information provided in the table below is based on reference material or local sources.

Table 9.12-11. Hazard Event History

Date(s) of Event	Event Type (disaster declaration if applicable)	Morris County Designated?	Summary of Event	Summary of Local Damages and Losses
January 21-24, 2016	Severe Winter Storm and Snowstorm (DR-4264)	Yes	An impulse from the west coast traversed the midsection of the country, then developed into a low-pressure system as it tracked across the Gulf States before intensifying along the Carolina coast into a major nor'easter, producing record snowfall in parts of New Jersey on January 23rd. It then moved out to sea after passing by the mid-Atlantic coast early on January 24th. Wind gusts up to 60 MPH produced blizzard conditions as visibilities dropped to one-quarter mile or	No losses reported.





Date(s) of Event	Event Type (disaster declaration if applicable)	Morris County Designated?	Summary of Event	Summary of Local Damages and Losses
			less in spots. Snowfall totals included 21.0 inches in Chatham.	
March 6-7, 2018	Severe Winter Storm and Snowstorm (DR-4368)	Yes	Precipitation gradually overspread the region during the overnight hours of March 6th to the 7th. 12 to 24 inches were observed across large parts of Morris County. The snow contained large amounts of liquid, making it heavy and wet. This resulted in downed trees, limbs, and wires, leading to numerous power outages across portions of New Jersey, especially where the heaviest snow was reported.	No losses reported.

9.12.6 Jurisdiction-Specific Vulnerabilities and Hazard ranking

The hazard profiles in Section 4 (Risk Assessment) provide detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the hazards of greatest concern and risk to the Borough of Florham Park.

In an attempt to summarize the confidence level regarding the input utilized to populate the hazard ranking, a gradient of certainty was developed. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and increased understanding of the data utilized to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.



Table 9.12-12. Summary of Risk Assessment Results

Hazard of Concern	Hazard/ Scenario Area Evaluated	Population		Buildings		Economy (Loss)		Certainty Factor
Dam Failure	Partial or complete failure of a dam There is 1 dam in the Borough, according to NJDEP.	Population impacted is dependent on the capacity of the dam, the extent of the dam failure inundation area and the severity of the failure.		The number of building impacted is dependent on the capacity of the dam, the extent of the dam failure inundation area and the severity of the failure.		Economic impacts include dam/building/infrastructure repairs; debris removal/disposal; utility impacts.		Low
Disease Outbreak	Disease Outbreaks which include: Mosquito-Borne Diseases, Tick-Borne Diseases, Campylobacteriosis, Influenza, Mumps, Ebola	Population impacted is dependent on the disease and severity of the outbreak; in some cases immunocompromised persons are more vulnerable.		Structural impacts due to disease outbreak would be limited.		Economic losses can include County financial impacts to monitor/address outbreaks; lost wages or commercial interruptions; depends on the severity and type of disease outbreak.		Low
Drought	Prolonged drought event - The County is serviced by water supplies who primarily get water from groundwater sources; some surface water sources.	Entire population exposed. Population on surface water supplies may be impacted first; water restrictions/contamination; increased wildfire risk.		Droughts are not expected to cause direct damage to buildings.		Losses include aesthetic, landscape/nursery/agricultural industry impacts.		Low
Earthquake	"100, 500-, 2,500-Year Mean Return Period (MRP) Events evaluated NEHRP Soils D&E (soft soils that amplify ground shaking are present in the County"	NEHRP D&E:	11,792	NEHRP D&E:	3,805	100-year Loss:	\$0	High
		Liquefaction Class 4:	76	Liquefaction Class 4:	26	500-year Loss:	\$5,112,294	
						2,500-year Loss:	\$72,147,147	
Extreme Temperature	Extreme temperature event (heat or cold)	Over 65 Population:	2,394	Physical impacts due to extreme temperatures would be limited.		Loss of business function is possible due to unexpected repairs (i.e. pipes bursting) or power failures.		Low
		Population Below Poverty Level:	932					
Flood	100- and 500-Year Mean Return Period Event	100-year	92	100-year	38	100-year Loss:	\$90,660,645	High
		500-year	211	500-year	75			
Geological		Class A:	0	Class A:	0	Class A:	0	Moderate





Hazard of Concern	Hazard/ Scenario Area Evaluated	Population		Buildings		Economy (Loss)		Certainty Factor
		Class B:		Class B:		Class B:		
	High Landslide Susceptibility Areas and Areas developed over carbonate rock	Class B:	68	Class B:	17	Class B:	\$14,433,510	
		Carbonate Bedrock:	0	Carbonate Bedrock:	0	Carbonate Bedrock:	\$0	
Harmful Algal Bloom	Any body of water or area adjacent that is susceptible to harmful algal bloom.	Population in contact (e.g., swimming) or drinking water from surface water impacted can result in a range of health effects		General building stock impacts due to harmful algal bloom are not anticipated. Critical facilities (i.e., water treatment plants) could lead to plant closures.		Economic impacts range from recreational closure of impacted waterbodies; cost to sample/monitor/remediate.		Low
Hazardous Substance	Release of a hazardous substance from a fixed site.	Population impacted will depend on the type of material and scale of the incident. May include population within small radii of site.		The degree of damages to a building depends on the scale of the incident.		The degree of damages depends on the scale of the incident.		Low
Infestation	Infestation including: Insects [e.g. Gypsy Moth, Mosquitoes, Spotted Lanternfly, Emerald Ash Borer], White-Tailed Deer, Rodents	Population impacted will depend on the type and severity of infestation and may cause an increased risk for disease outbreak.		Physical impacts will be limited to indirect impacts from invasive species which affect crops and vegetation.		Economic impact will depend on the type and severity of infestation and may cause an increased risk for disease outbreak.		Low
Severe Weather	Severe Weather Event	Entire population exposed; The degree of impact to the population depends on the scale of the incident.		Entire building stock is exposed; The degree of impact depends on the scale of the incident.		Annualized Loss:	\$61,312	High
						100 -Year Loss:	\$808,636	
						500-year Loss:	\$3,981,205	
Severe Winter Weather	Severe Winter Weather Event	All residents/commuters/visitors are exposed; socially-vulnerable populations may be at increased risk.		All buildings are exposed; the degree of impact depends on the scale of the incident.		The cost of snow and ice removal and repair of roads/infrastructure can impact operating budgets.		Low
Wildfire	Wildfire Fuel Hazard areas (High, Very High, Extreme)	Wildfire:	8	Wildfire:	4	Wildfire:	\$26,325,084	Moderate





REPETITIVE FLOOD LOSSES

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

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

Source: FEMA BureauNet, 2019

Note: RL and SRL as of 04/26/2019; The number of SRL properties excludes RL properties and includes properties that have been verified only (SRL_Indicator = V).

CRITICAL FACILITIES

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

Table 9.12-13. Potential Flood Losses to Critical Facilities and Lifelines

Table with 5 columns: Name, Type, Exposure (1% Event, 0.2% Event), Status of Mitigation. Rows include Sewer Pump Station - Hassock Brook and Sewer Pump Station - Black Brook.

Source: Morris County, 2019; FEMA 2014/2017/2018; HAZUS-MH v4.2, https://nid.sec.usace.army.mil/ords/f?p=105:113:8713532089703::NO:::
* Lifeline

ADDITIONAL IDENTIFIED VULNERABILITIES

According to the 2015 preliminary FEMA Flood Insurance Study (FIS) for Morris County, flooding in the Borough of Florham Park is primarily caused by the Passaic River. Flooding of the River occurs as a result of heavy rainfall. The soils of the Borough have low permeability which makes the Borough subject to frequent flooding and ponding of surface water during periods of heavy rain (FEMA FIS 2015).

HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps were generated for the Borough of Florham Park 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 Florham Park has significant exposure. Refer to Figures 9.12-1 and 9.12-2.

HAZARD RANKING

This section includes the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (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; and community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 4.3 (Hazard Ranking), each plan participant may have differing degrees of risk exposure and vulnerability compared to Morris County as a whole. Therefore, each jurisdiction ranked the degree of risk





to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Borough of Florham Park. The Borough of Florham Park has reviewed the Morris County hazard ranking table, as well as 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 agreed with the calculated 2020 hazard rankings.

Table 9.12-14. Borough of Florham Park Hazard Ranking Input

Dam Failure	Disease Outbreak	Drought	Earthquake	Extreme Temperature	Flood	Geological Hazard
Low	High	Medium	Medium	Medium	Medium	Low

Harmful Algal Bloom	Hazardous Substances	Infestation	Severe Weather	Severe Winter Weather	Wildfire
Low	High	Medium	High	High	Low

9.12.7 Mitigation Strategy and Prioritization

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

PAST MITIGATION INITIATIVE STATUS

The following table summarizes the jurisdiction’s progress on their mitigation strategy identified in the 2015 HMP. Actions that are carried forward as part of this plan update are included in the following subsection in its own table 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 9.12-15. Status of Previous HMP Mitigation Actions

2015 Action Number Action Description	Responsible Party	Status (In Progress, No Progress, Ongoing Capability, or Completed)	Include in the 2020 HMP Update?	
			Check if Yes	Enter 2020 HMP Action #
FP-1 Upgrade backup power (generator) for Ridgedale Middle School (shelter).	<u>Florham Park Board of Education</u> , OEM	In progress	x	2020-Florham Park-003
FP-2 Retrofit POD at Municipal Recreation building at 111 Ridgedale for flooding and backup power (generator).	<u>Community Service Director</u>	Discontinue (no longer a priority)	-	-
FP-3 Obtain information about becoming a certified Firewise Community	<u>Fire Department</u> , OEM	Discontinue (no longer a priority)	-	-
FP-4 Create/ Enhance/ Maintain Mutual Aid agreements with neighboring communities for continuity of operations	<u>Borough Administration</u> , with support from County, NJOEM, FEMA and surrounding communities	In progress. Investigate County permanent, consistent first aid service coverage	x	2020-Florham Park-004



In addition to the above progress, the Borough of Florham Park identified the following mitigation projects/activities that were completed but not identified in the 2015 HMP mitigation strategy:

- The Borough Volunteer Fire Company 1 at 315 Brooklake Rd has backup power and is designated as a warming station.
- The Florham Park Memorial First Aid Squad, Inc at 60 Felch Road is designated as a warming/charging station.
- Saint Anne Villa at 190 Park Avenue is designated as a primary shelter and warming and charging station. This site is not municipally owned and should keep open communications with the property owner.

PROPOSED HAZARD MITIGATION INITIATIVES FOR THE PLAN UPDATE

The Borough of Florham Park participated in a risk assessment workshop in November 2019 in which detailed information was provided about assets exposed and vulnerable to the identified hazards of concern. The Borough of Florham Park participated in a mitigation action workshop in March 2020 and was provided a Mitigation Toolbox that included a mitigation catalog developed specifically for Morris County and its hazards of concerns; challenges and opportunities identified during the capability and risk assessments; 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 9.12-16 summarizes the comprehensive range of specific mitigation initiatives the Borough of Florham Park would like to pursue in the future to reduce the effects of hazards. Some of these initiatives might be previous actions carried forward for this HMP update. 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 criteria were used to evaluate each action, including an evaluation of the benefits and costs. For each new mitigation action, a numeric rank was assigned (-1, 0, or 1) for each of the 14 evaluation criteria. The results of this evaluation, in addition to input from the jurisdiction, were then used to prioritize the mitigation initiatives as 'High', 'Medium', or 'Low.' Table 9.12-17 summarizes the evaluation of each mitigation initiative and the resulting priority, listed by Action Number.



Table 9.12-16. Proposed Hazard Mitigation Initiatives and Associated Priority

Initiative Number	Mitigation Initiative Name	Description of the Problem	Description of the 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-Florham Park-001	Hassock Brook Sewer Pump Station Flooding	Hassock Brook Sewer Pump Station is a critical facility in the floodplain.	Determine extent of flooding expected to the facility and plan mitigation	Existing	Flood, Severe Storm	1, 4	Engineering	Operating budget, HMGP, PDM	High	Medium	Short	High	SIP	PR, PP, SP
2020-Florham Park-002	Black Brook Sewer Pump Station Flooding	Black Brook Sewer Pump Station is a critical facility in the floodplain.	Determine extent of flooding expected to the facility and plan mitigation	Existing	Flood, Severe Storm	1, 4	Engineering	Operating budget, HMGP, PDM	High	Medium	Short	High	SIP	PR, PP, SP
2020-Florham Park-003	Ridgedale Middle School Primary Shelter	Upgrade backup power for Ridgedale Middle School to be used as the primary shelter. Currently only the elevators are on generator.	Work with the Florham Park Board of Education to obtain and install a generator for the entire Ridgedale Middle School	New	Earthquake, Flood, Severe Storm, Severe Winter Weather Wildfire	1, 4	Engineering, Board of Education	Capital budget, HMGP, PDM	Medium	Medium	Medium	Medium	SIP	PR, ES
2020-Florham Park-004	Mutual Aid Agreements	First aid mutual aid agreements could provide support to the Borough in times of need.	Borough will investigate options for agreements that would support during events.	New	All	1, 3, 4	Engineering	Operating budget	Medium	Medium	Short	Medium	EAP	PR, ES
2020-Florham Park-005	Sewer plant backup	Sewage Plant did not have power during Superstorm Sandy, as Diesel was not available due to shortages.	Investigate upgrade from diesel generators to natural gas or multisource conversion.	New	Severe storm, power outage	1, 4	Engineering	Capital budget, HMGP, PDM	High	Medium	Medium	High	SIP	PR, PP, ES
2020-Florham Park-006	Senior Center Warming Facility	Florham Park Senior Center is Borough owned, serves as a	Install backup generator	New	Flood, Severe Storm, Severe	1, 4	Engineering	Capital budget, HMGP, PDM	Medium	Medium	Medium	Medium	SIP	PR, ES



Initiative Number	Mitigation Initiative Name	Description of the Problem	Description of the 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
		warming/charging station, and does not have backup power.			Winter Weather, Power Loss									
2020-Florham Park-007	Fairleigh Dickinson communication equipment	Fairleigh Dickinson University houses the Borough's communication equipment but does not have backup power.	Verify with the University for communication antenna backup power.	Existing	All	1, 4	Engineering	Operating budget	High	Low	Short	High	SIP	PP, ES
2020-Florham Park-008	Edgewood and Circle Road Flooding	Edgewood and Circle Road floods during heavy rains. Stormwater lines back up from Passaic River.	Drainage upgrades during road maintenance project.	Existing	Flood, Severe Storm, Severe Winter Weather	1, 4	Engineering	Operating budget, HMGP, PDM	High	Medium	Short	High	SIP	PR, PP, SP
2020-Florham Park-009	Columbia Turnpike Flooding	Columbia Turnpike floods during heavy rains. Stormwater lines back up from Whippany River.	Ensure that the location is on the list for the County to mitigate.	Existing	Flood, Severe Storm, Severe Winter Weather	1, 4	Engineering	Operating budget	High	Medium	Short	High	SIP	PR, PP, SP
2020-Florham Park-010	Farr Lane Flooding	Farr Lane culvert floods due to undersized culvert. Stormwater lines back up from Whippany River.	Culvert upsizing during road maintenance project.	Existing	Flood, Severe Storm, Severe Winter Weather	1, 4	Engineering	Operating budget, HMGP, PDM	High	Medium	Short	High	SIP	PR, PP, SP



Initiative Number	Mitigation Initiative Name	Description of the Problem	Description of the 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-Florham Park-011	Triumph Development Corp Dam #2	Triumph Development Corp Dam #2 is in Florham Park.	Notify Triumph Development that Dam #2 is a critical facility in the floodplain. Update EOP to include dam.	Existing	Flood	1, 4	Engineering	Operating budget	Medium	Low	Short	Low	EAP	FS

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
 PDM Pre-Disaster Mitigation Grant Program

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

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

Mitigation Category:

- 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 9.12-17. 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-Florham Park-001	Haddock Brook Sewer Pump Station Flooding	1	1	1	1	0	1	0	1	1	0	1	0	1	0	9	High
2020-Florham Park-002	Black Brook Sewer Pump Station Flooding	1	1	1	1	0	1	0	1	1	0	1	0	1	0	9	High
2020-Florham Park-003	Ridgedale Middle School Primary Shelter	1	0	1	1	1	0	0	0	1	1	1	0	0	0	7	Medium
2020-Florham Park-004	Mutual Aid Agreements	1	1	1	1	0	1	0	0	0	1	1	1	0	0	8	Medium
2020-Florham Park-005	Sewer plant backup	1	1	1	1	1	1	1	0	1	1	1	0	0	0	10	High
2020-Florham Park-006	Senior Center Warming Facility	1	0	1	1	1	0	0	0	1	1	1	0	0	0	7	Medium
2020-Florham Park-007	Fairleigh Dickinson communication equipment	1	1	1	1	1	1	1	0	1	1	1	1	0	0	11	High
2020-Florham Park-008	Edgewood and Circle Road Flooding	1	1	1	1	0	1	0	1	1	0	1	0	1	0	9	High
2020-Florham Park-009	Columbia Turnpike Flooding	1	1	1	1	0	1	0	1	1	0	1	0	1	0	9	High
2020-Florham Park-010	Farr Lane Flooding	1	1	1	1	0	1	0	1	1	0	1	0	1	0	9	High
2020-Florham Park-011	Triumph Development Corp Dam #2	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	Low



Table 9.12-18. 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	011	011	011	011	011	011	011	011
Disease Outbreak	-	-	-	-	003, 007	-	003	003
Drought	-	-	-	-	003, 007	-	-	-
Earthquake	-	-	-	-	003, 007	-	-	-
Extreme Temperature	-	-	-	-	003, 006, 007	-	-	-
Flood	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011
Geological	-	-	-	-	003, 004, 006, 007	-	-	-
Harmful Algal Bloom	-	-	-	-	003, 004, 006, 007	-	-	-
Hazardous Substance	-	-	-	-	003, 004, 006, 007	-	-	-
Infestation	-	-	-	-	003, 004, 006, 007	-	-	-
Severe Weather	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011
Severe Winter Weather	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011
Wildfire	-	-	-	-	003, 004, 006, 007	-	-	-

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

RED = high ranked hazard

ORANGE = medium ranked hazard

YELLOW = low ranked hazard

9.12.8 Staff and Local Stakeholder Involvement in Annex Development

The Borough of Florham Park 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 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 9.12-19. Contributors to the Annex

Entity	Title	Method of Participation
Daniel Bundschuh	Coordinator, Primary POC	Attended first annex meeting
Joseph Orlando	Assistant OEM Coordinator, Alternate POC, Police Chief	Attended first annex meeting
Kayla Kaplan	Engineering Assistant, NFIP Administrator	Attended first annex meeting
Michael Smith	DPW Director	Attended first annex meeting
James Fonzino	Fire Official	Attended first annex meeting
Kevin Guilfoyle	Construction Official	Attended first annex meeting
Michael Sgaramella	Director of Water and Sewer	Attended first annex meeting



Figure 9.12-1. Borough of Florham Park Hazard Area Extent and Location Map 1

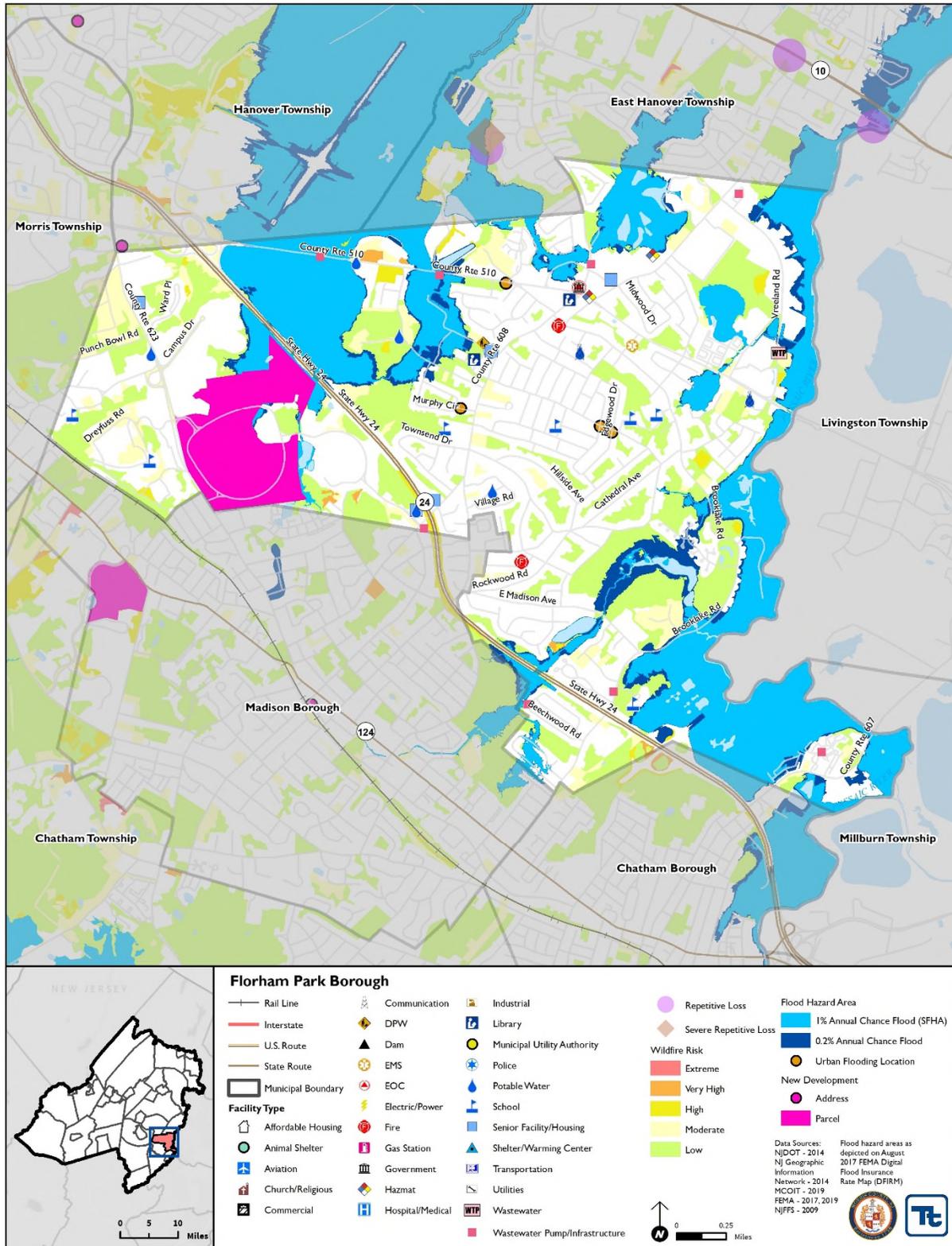
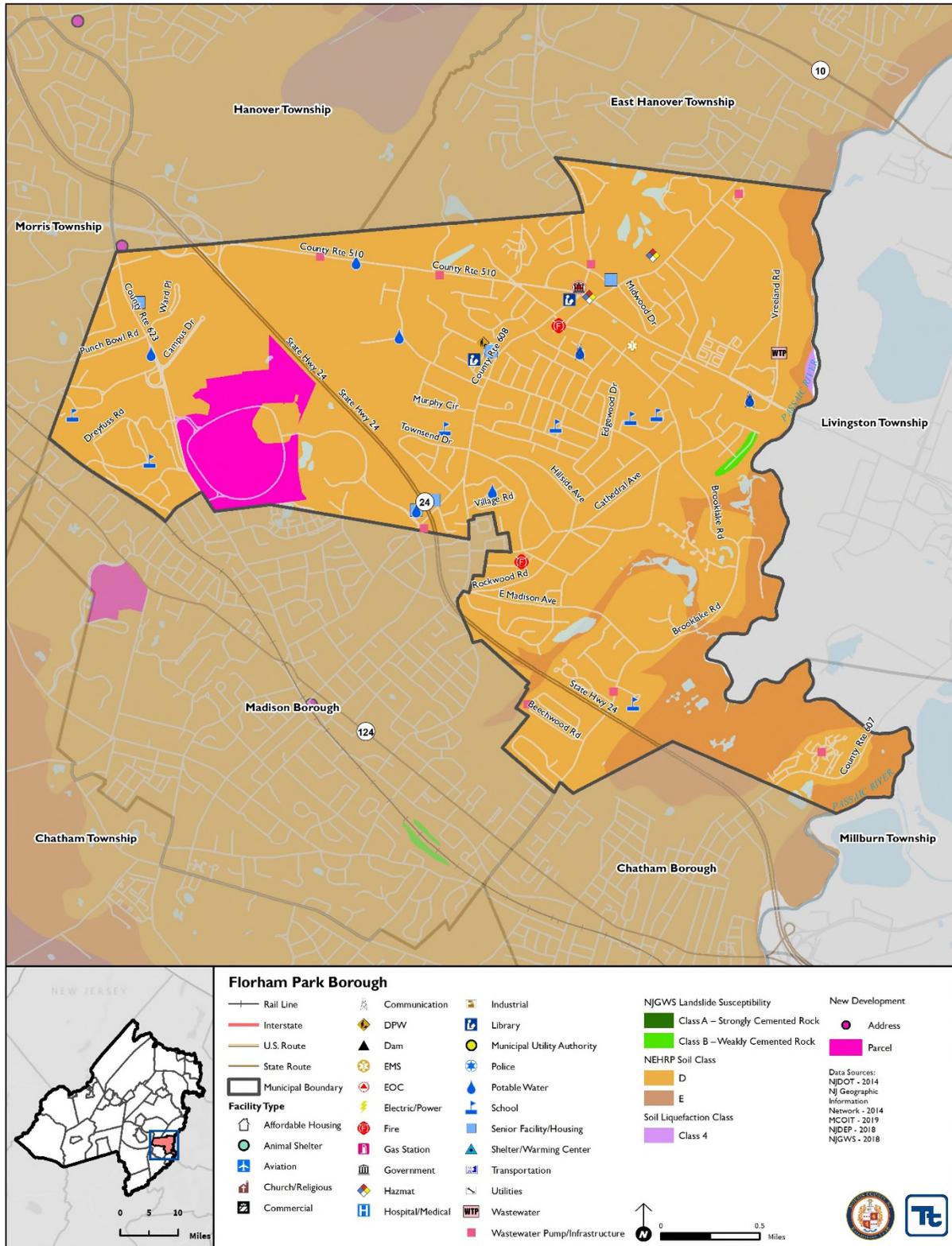




Figure 9.12-2. Borough of Florham Park Hazard Area Extent and Location Map 2





Name of Jurisdiction: Florham Park Borough
 Name and Title Completing Worksheet: Daniel Bundschuh, OEM Coordinator

Action Worksheet			
Project Name:	Hassock Brook Pump Station		
Project Number:	Florham Park-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, severe storm		
Description of the Problem:	Sewer pump station at Hassock Brook is a lifeline in the floodplain.		
Action or Project Intended for Implementation			
Description of the Solution:	Coordinate with flood plain manager and engineering to devise a mitigation strategy to ensure operation of the Hassock Brook Pump Station during hazard events.		
Is this project related to a Critical Facility or Lifeline?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Level of Protection:	500-year storm	Estimated Benefits (losses avoided):	High
Useful Life:	TBD	Goals Met:	1, 4
Estimated Cost:	Medium	Mitigation Action Type:	Sip
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Short
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	Operating budget, HMGP, PDM
Responsible Organization:	Engineering	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
	Evaluate mitigation options	Medium	Determine most cost effective
	Relocate pump station	High	Not feasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Name of Jurisdiction: Florham Park Borough
 Name and Title Completing Worksheet: Daniel Bundschuh, OEM Coordinator

Action Worksheet	
Project Name:	Hassock Brook Pump Station
Project Number:	Florham Park-001



Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensure removal of sanitation
Property Protection	1	Reduce flood damage and unsanitary conditions
Cost-Effectiveness	1	Preventative measures to avoid clean up
Technical	1	Flood protection options are available
Political	0	-
Legal	0	-
Fiscal	0	-
Environmental	1	Reduce EPA violations and cleanup costs
Social	1	Neighborhood impact for pump area
Administrative	1	Less follow up for damages
Multi-Hazard	1	Disease/unsanitary conditions
Timeline	0	-
Agency Champion	1	Engineering/Sewer/DPW
Other Community Objectives	0	-
Total	9	
Priority (High/Med/Low)	High	



Name of Jurisdiction: Florham Park Borough
 Name and Title Completing Worksheet: Daniel Bundschuh, OEM Coordinator

Action Worksheet			
Project Name:	Black Brook Pump Station		
Project Number:	Florham Park-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, severe storm		
Description of the Problem:	Sewer pump station at Black Brook is a lifeline in the floodplain.		
Action or Project Intended for Implementation			
Description of the Solution:	Coordinate with flood plain manager and engineering to devise a mitigation strategy to ensure operation of the Hassock Brook Pump Station during hazard events.		
Is this project related to a Critical Facility or Lifeline?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Level of Protection:	500-year storm	Estimated Benefits (losses avoided):	High
Useful Life:	TBD	Goals Met:	1, 4
Estimated Cost:	Medium	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Short
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	Operating budget, HMGP, PDM
Responsible Organization:	Engineering	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
	Evaluate mitigation options	Medium	Determine most cost effective
	Relocate pump station	High	Not feasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Name of Jurisdiction: Florham Park Borough
 Name and Title Completing Worksheet: Daniel Bundschuh, OEM Coordinator

Action Worksheet	
Project Name:	Black Brook Pump Station
Project Number:	Florham Park-002



Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensure sanitation
Property Protection	1	Reduce flood damage
Cost-Effectiveness	1	Preventative measures to avoid clean up
Technical	1	Flood protection options are available
Political	0	-
Legal	0	-
Fiscal	0	-
Environmental	1	Reduce EPA violations and cleanup costs
Social	1	Reduce impact of surrounding neighborhood of sewage
Administrative	1	Less follow up for damages
Multi-Hazard	1	Reduce health and environmental impacts
Timeline	0	-
Agency Champion	1	Engineering and sewer departments
Other Community Objectives	0	-
Total	9	
Priority (High/Med/Low)	High	