



## 9.7 BOROUGH OF CHESTER

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

### 9.7.1 Hazard Mitigation Planning Team

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

*Table 9.7-1. Hazard Mitigation Planning Team*

Primary Point of Contact	Alternate Point of Contact
Ed Windt, OEM Coordinator 50 North Road, Chester, NJ 07930 (973) 479-5408 oem@chesterborough.org	Bruce Ellmann, Deputy OEM Coordinator 50 North Road, Chester, NJ 07930 (973) 479-9836 oem@chestertownship.org
<b>Flood Subject-Matter Expert – the Borough does not participate in the NFIP</b>	
Paul Ferriero, Engineer 50 North Road, Chester, NJ 07930 (908) 879-6209 Paul.ferriero@ferrieroengineering.com	

### 9.7.2 Jurisdiction Profile

The Borough of Chester is located in southwestern Morris County, at the intersection of State Highway 24 and U.S. Highway 206. The Borough enjoys a flourishing commercial area while most of the land area in the 1.45 square miles of our community is devoted to single family housing. Chester itself was established as a separate political entity in 1799, at which time "Chester" meant the area of both the Township and the downtown Village area, which came to be the Borough. The Borough of Chester was incorporated in 1930 and is a separate municipality surrounded by the Township of Chester, as presented in Section 9.8 (Township of Chester).

The Borough of Chester is located within the NJ Highlands Region which is an area of 859,358 acres located in the northwest part of the State. The NJ Highlands Planning Act (Highlands Act, P.L. 2004, c.120) provided the statutory authority for the development of the Highlands Regional Plan which established specific boundaries as the Preservation Area and the Planning Area within the Highlands Region with the goal of protecting the natural and cultural resources of the Highlands Region while striving to accommodate a sustainable economy. The fundamental difference between these two areas is that municipal and county conformance with the Regional Plan is required for communities in the Preservation Area but voluntary for those in the Planning Area. The plan provides minimum standards governing municipal master planning, development regulations, and other regulations concerning the development and use of land, including standards for minimum lot sizes and stream setbacks, construction on steep slopes, maximum appropriate population densities, and regulated or prohibited uses for specific portions of the Preservation Area. The Borough’s 1,019 acres are entirely located in the Highlands Planning Area.



According to the U.S. Census, the 2010 population for the Borough of Chester was 1,649. The estimated 2017 population was 1,540, a 6.6 percent decrease from the 2010 Census. Data from the 2017 U.S. Census American Community Survey indicate that 4.5% of the population is 5 years of age or younger and 21% is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

### 9.7.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction’s overall risk to its hazards of concern. Table 9.7-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.7-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development.

**Table 9.7-2. Recent and Expected Future Development**

Type of Development	2014	2015	2016	2017	2018
<b>Number of Building Permits for New Construction Issued Since the Previous HMP</b>					
Single Family	0	0	0	0	4
Multi-Family	-	-	-	-	-
Other (commercial, mixed-use, etc.)	-	-	-	-	-
Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zone(s)*	Description / Status of Development
<b>Recent Major Development and Infrastructure from 2015 to Present</b>					
None.					
<b>Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years</b>					
Larison Property	Residential and commercial development	Thousands of square feet of retail, office and medical space, a new restaurant, 20 townhouses and 36 affordable housing units.	Intersection of Routes 513 and 206	None	Proposed development

### 9.7.4 Capability Assessment

The Borough of Chester 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.

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 Chester identified specific integration activities that will be incorporated into municipal procedures 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 Chester and where hazard mitigation has been integrated.

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

	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Has the HMP been integrated in the last 5 years ? If yes- how?	
				If yes-how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<b>Codes, Ordinances, &amp; Requirements</b>					
<b>Building Code</b>	Yes	State & Local	Yes	-	-
<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 .</i>					
<b>Zoning Code</b>	Yes	Local	Yes, if have planning board	-	-
<i>Comment: Updated by the Planning Board and Governing Body (Chapter 163 (Land Development and Procedures) Article IX (Zoning – Zoning Requirements)) Adopted 5/2019</i>					
<b>Subdivisions</b>	Yes	Local	Yes, if have planning board	-	-
<i>Comment: Updated by the Planning Board and Governing Body (Chapter 163 (Land Development and Procedures) Article VII (Subdivision of Land))</i>					
<b>Stormwater Management</b>	Yes	Local	Yes	-	-
<i>Comment: Engineering updates. (Chapter 204 Borough of Chester Code. Amended February 7, 2006.)</i>					
<b>Post-Disaster Recovery</b>	No		No	-	-
<b>Comment:</b>					
<b>Real Estate Disclosure</b>	Yes	State	Yes	-	-
<i>Comment: Division of Consumer Affairs (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 proximity to hospitals, schools, fire and police, as well as any hazards, risks or nuisances in or around the subdivision.</i>					
<b>Growth Management</b>	Yes	Local	Yes, if have planning board	-	-
<i>Comment: State Mandated on a municipal level. See Zoning Ordinance ; Also - Plan Endorsement Process via the State Development &amp; Redevelopment Plan provides for the delineation of Growth Areas and Environs; Use of the endorsed plans in the implementation of state environmental regulations makes the Plan Endorsement process a growth management strategy. Via Master Plan.</i>					
<b>Site Plan Review</b>	Yes	Local	Yes, if have planning board	-	-





	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Has the HMP been integrated in the last 5 years ? If yes- how?	
				If yes-how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<b>Comment:</b> Through land use board, reference Section 163-27 of Borough code : 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 and 40:27-6.10.					
<b>Environmental Protection</b>	Yes	State	Yes	-	Y-
<b>Comment:</b> 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.					
<b>Flood Damage Prevention</b>	No	Local	No	-	-
<b>Comment:</b> The Borough currently does not participate in the NFIP as it has no NFIP mapped floodplains					
<b>Wellhead Protection</b>	No	Local	No	-	-
<i>Comment:</i>					
<b>Emergency Management</b>	Yes	Local	Yes	-	-
<b>Comment:</b> 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.					
<b>Climate Change</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Disaster Recovery Ordinance</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Disaster Reconstruction Ordinance</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Other: Municipal Separate Storm Sewer System (MS4)</b>	Yes	Local	Yes	-	-
<b>Comment:</b> Chapter 192 (Sewers and Water)					
<b>Other: [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]</b>	Yes	Local	/No		
<b>Comment:</b> Chapter 197 (Soil Control) Article I (Soil Erosion, Sediment Control and Flood Prevention)					
<b>Planning Documents</b>					
<b>Comprehensive / Master Plan</b>	Yes	Local	Municipal: Yes/No County: Yes	-	-
<b>Comment:</b> Plan was prepared by Banish Associates. 11/12/2002. Authority is the Planning Board.					
<b>Capital Improvement Plan</b>	Yes	Local	Allowed	-	-
<b>Comment:</b> Per NJSA 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.					
<b>Disaster Debris Management Plan</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Floodplain or Watershed Plan</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Stormwater Management Plan</b>	Yes	Local	Yes	-	-
<b>Comment:</b> Authority is Governing Body/Engineer and is updated "as needed". Reference Chapter 201 Stormwater Management adopted by the Mayor and Council of the Borough of Chester 2-7-2006 by Ord. No. 2006.					
<b>Stormwater Pollution Prevention Plan</b>	Yes	State	Yes	-	-
<b>Comment:</b> Comment: Revised 9/20/2019. 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					



	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Has the HMP been integrated in the last 5 years? If yes- how?	
				If yes-how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<i>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).</i>					
<b>Urban Water Management Plan</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Habitat Conservation Plan</b>	Yes	Local	No	-	-
<b>Comment:</b> <i>May develop a conservation plan element in master plan per NJSA 40:5D-28b (8). Addressed in the master plan.</i>					
<b>Economic Development Plan</b>	Yes	Local	No	-	-
<b>Comment:</b> <i>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.) addressed in the master plan.</i>					
<b>Shoreline Management Plan</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Community Wildfire Protection Plan</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Community Forest Management Plan</b>	Yes	Local	No	-	-
<b>Comment:</b> <i>The Borough' Second Community Forest Management Plan dated 2018-2022 is prepared in accordance with the NJ Shade Tree Commission and provides a guide to create, protect, sustain, and manage a robust healthy tree resource for the environment, aesthetic, and economic benefit of residents, visitors, and businesses.</i>					
<b>Transportation Plan</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Agriculture Plan</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Climate Action Plan</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Tourism Plan</b>	Yes	Local	No	-	-
<b>Comment:</b> <i>Addressed in the master plan.</i>					
<b>Business Development Plan</b>	No	Local	No	-	-
<b>Comment:</b> <i>Addressed in the master plan.</i>					
<b>Other: Shade Tree Commission</b>	Yes	Local	No	-	-
<b>Comment:</b> <i>40:37-5. Powers; regulations; trees on highways; parks. The shade tree commission may exercise exclusive control over the regulation, planting and care of shade and ornamental trees and shrubbery now situate or which may hereafter be planted in any public highway, park or parkway of the county with exceptions noted in the law.</i>					
<b>Other: Open Space Plan</b>	Yes	Local	No	-	-
<b>Comment:</b> <i>Updated by the Governing Body/Planning Board 1/28/2010</i>					
<b>Other: Historic Preservation</b>	Yes	Local	No	-	-
<b>Comment:</b> <i>40:32-6. Acquisition and preservation of historical buildings and data - Any county may acquire, by gift or purchase, any real estate or any interests therein, together with any and all buildings thereon within the limits of the county for historical purposes, or for the purpose of preserving therein or thereon historical data and objects of historical interest.</i>					
<b>Response/Recovery Planning</b>					
<b>Comprehensive Emergency Management Plan (CEMP) / Emergency Operations Plan (EOP)</b>	Yes	Local	EOP= Yes	-	-
<b>Comment:</b> <i>Chief of Police Updates the Plan</i>					





	Do you have this? (Yes/No)	Authority that enforces (Federal, State, Regional, County, Local)	Is this State Mandated?	Has the HMP been integrated in the last 5 years ? If yes- how?	
				If yes-how? Describe in comments	If no - can it be a mitigation action? If yes, add Mitigation Action #.
<b>Threat &amp; Hazard Identification &amp; Risk Assessment (THIRA)</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Post-Disaster Recovery Plan</b>	No	Local	No	-	-
<b>Comment:</b>					
<b>Continuity of Operations Plan</b>	No	Local	No	-	-
<b>Comment:</b>					
Public Health Plan	Yes	Local	No	-	-
<i>Comment: The public health annex is updated yearly. Also, reference Chapter 249 of the Borough code, adopted by the Board of Health of the Borough of Chester 3-20-1980 as Ch. BH:IV of the 1980 Code</i>					
<b>Other</b>	-	-	-	-	-
<b>Comment:</b>					

**Table 9.7-4. Development and Permitting Capability**

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

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

Staff/Personnel Resource	Available?	Department/Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	Planning Board Secretary
Mitigation Planning Committee	No	
Environmental Board / Commission	Yes	Committee
Open Space Board / Committee	Yes	Committee- no employees, volunteer positions
Economic Development Commission / Committee	No	Borough is working on developing and Economic Development Committee





Staff/Personnel Resource	Available?	Department/Agency/Position
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	There is a warning siren but it needs to be replaced.
Maintenance program to reduce risk	Yes	The Borough has an MS4 plan, and maintains drainage and stormwater detention infrastructure
Mutual aid agreements	Yes	Red Cross; Fire Mutual Aid (county-wide)
<b>Technical/Staffing Capability</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	Professional Services, not employees
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineering, professional services
Planners or engineers with an understanding of natural hazards	Yes	Paul Ferriero, Contractor
Staff with training in benefit/cost analysis	Yes	Paul Ferriero, Contractor
Staff with training in green infrastructure	Yes/No	Paul Ferriero, Contractor
Staff with education/knowledge/training in low impact development	Yes/No	Paul Ferriero, Contractor
Surveyor	Yes	Paul Ferriero, Contractor
Stormwater engineer	Yes/No	Paul Ferriero, Contractor
Personnel skilled or trained in GIS applications	Yes/No	Paul Ferriero, Contractor
Local or state water quality professional	Yes/No	Paul Ferriero, Contractor
Scientist familiar with natural hazards in local area	Yes	Paul Ferriero, Contractor
Emergency manager	Yes/No	Edward Windt
Watershed planner	Yes/No	No
Environmental specialist	Yes/No	No
Grant writers	Yes	Paul Ferriero, Contractor
Resilience Officer	No	-
Other	Yes	Paul Ferriero, Contractor

**FISCAL CAPABILITY**

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

**Table 9.7-6. Fiscal Capabilities**

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes, eligible to apply for, administrator
Capital Improvements Project Funding	Yes, Governing Body puts in budget, CFO administers funding
Authority to Levy Taxes for Specific Purposes	Yes, Governing Body
User Fees for Water, Sewer, Gas or Electric Service	Yes, Sewer, Governing Body
Incur Debt through General Obligation Bonds	Yes, Governing Body, CFO administers
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No





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

**EDUCATION AND OUTREACH CAPABILITY**

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

**Table 9.7-7. Education and Outreach Capabilities**

Criterion	Response
Do you have a public information officer or communications office?	No
Do you have personnel skilled or trained in website development?	No
Do you have hazard mitigation information available on your website? ▪ If yes, briefly describe.	Yes
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.	SwiftReach, Reverse 911, AM Radio Station 1780, Website and Social Media (FaceBook and Twitter)
Do you have any established warning systems for hazard events? ▪ If yes, briefly describe.	No

**COMMUNITY CLASSIFICATIONS**

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

**Table 9.7-8. 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	4/8B	6/27/2011
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 table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.







- The administrative is supportive of integrating climate change in policies or actions.
- Climate change will be a part of the Center Designation Plan that the Borough of Chester is currently working on with the Highlands Council.

Table 9.7-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low
Dam Failure	Medium
Disease Outbreak	Medium
Drought	Medium
Earthquake	Medium
Extreme Temperature	Medium
Flood	Medium
Geological Hazards	Medium
Harmful Algal Bloom	Medium
Hazardous Substances	Medium
Infestation	Medium
Severe Weather	Medium
Severe Winter Weather	Medium
Wildfire	Medium

**NATIONAL FLOOD INSURANCE PROGRAM**

The Borough of Chester does not participate in the National Flood Insurance Program.

**ADDITIONAL AREAS OF EXISTING INTEGRATION**

- The Borough has integrated the Highlands Region Master Plan into its ongoing operations by adopting a highlands plan element in its master plan and coordinating land development to align with the regional plan.
- **Land Use Planning:** Chester Borough's Master Plan and land use ordinances are consistent with State regulations that require development to avoid natural hazard risk areas, such as wetlands and stream corridors that may be susceptible to inundation by flooding conditions. The Borough's Natural Resource Inventory identifies these areas, which are also identified in the Borough's land use ordinance as Highlands Resource and Special Protection Areas in which development is prohibited. The Borough's land use ordinances define "RIPARIAN AREA, FLOOD-PRONE PORTION" as "Areas delineated by the Highlands Council based on NJDEP flood-prone and FEMA Q3 flood area mapping (NJDEP 1996, FEMA 1996) including USGS documented (by prior flood events) and undocumented flood-prone areas and Federal Emergency Management Agency (FEMA) one-hundred-year floodplain." As noted below, these potential hazard areas are evaluated in conjunction with local site plan and development review, as well as construction permitting.
- **Site Plan Review:** All new development in the Borough undergoes a formal site plan review process (Planning Board and Zoning Board), which includes consideration of natural hazard risk. All new development in the Borough is required to underground utilities.
- **Stormwater Management:** The Borough has an MS4 plan, which specifies maintenance of stormwater drainage and detention infrastructure, and includes public outreach and education.
- **Building Code Updates:** The Borough's Construction Official, along with other municipal government officials, update and amend the current municipal building code as needed and appropriate.





- **National Flood Insurance Program:** The Borough has no mapped floodplains and does not currently participate in the NFIP. However, the Borough has included an initiative in the updated mitigation strategy to consider joining the NFIP to facilitate property owners to purchase flood insurance voluntarily.
- **Capital Improvements Budget:** The Borough has a Capital Improvements Budget that may include projects that have natural hazard mitigation benefits and will include line-item funding to meet the local match for mitigation grants (e.g., Municipal Hall generator).
- **Public Education and Outreach:** In conjunction with the County, the Borough is in the beginning stages of developing a public education and outreach program. The purpose of the program is to inform and disseminate information to the public regarding hazard mitigation and preparedness. Further, the Borough has an active public education and outreach program related to its MS4 program.

### 9.7.5 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 Chester’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 9.7-11 provides details regarding municipal-specific loss and damages the Borough of Chester experienced during hazard events. Information provided in the table below is based on reference material or local sources.

**Table 9.7-11. Hazard Event History**

Date(s) of Event	Event Type (disaster declaration if applicable)	Hudson 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 less in spots. Snow began during the evening hours on the 22nd, then continued, heavy at times through the 23rd before ending early on the 24th. Snowfall totals included 30.0 inches in Long Valley, 29.0 inches in Madison, 26.0 inches in Budd Lake, 25.3 inches in Green Pond, 22.5 inches in Butler, and 21.0 inches in	



Date(s) of Event	Event Type (disaster declaration if applicable)	Hudson County Designated?	Summary of Event	Summary of Local Damages and Losses
			Chatham. At one point during the storm, up to 270,000 customers were without power.	
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 was 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. Many customers were still without power from the previous storm when this storm struck. Governor Murphy estimated about 350,000 customers state-wide lost power as a result of this second storm. Governor Phil Murphy declared a state of emergency which went into effect at 8 PM Tuesday March 6th.	

### 9.7.6 Jurisdiction-Specific Vulnerabilities and Hazard ranking

The hazard profiles in Section 4 (Risk Assessment) provide detailed information regarding each plan participant’s vulnerability to the identified hazards. Table 9.7-12 summarizes the Borough of Chester risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used 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 9.7-12. Summary of Risk Assessment Results

Hazard of Concern	Hazard/ Scenario Area Evaluated	Population		Buildings		Economy (Loss)		Certainty Factor
<b>Dam Failure</b>	Partial or complete failure of a dam  There are 0 dams 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
<b>Disease Outbreak</b>	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
<b>Drought</b>	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
<b>Earthquake</b>	"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:	0	NEHRP D&E:	0	100-year Loss:	\$0	High
		Liquefaction Class 4:	0	Liquefaction Class 4:	0	500-year Loss:	\$401,113	
						2,500-year Loss:	\$6,340,289	
<b>Extreme Temperature</b>	Extreme temperature event (heat or cold)	Over 65 Population:	324	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:	108					
<b>Flood</b>	100- and 500-Year Mean Return Period Event	100-year	0	100-year	0	100-year Loss:	\$0	High
		500-year	0	500-year	0			
<b>Geological</b>		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:	0	Class B:	0	Class B:	\$0	
	High Landslide Susceptibility Areas and Areas developed over carbonate rock	Carbonate Bedrock:	0	Carbonate Bedrock:	0	Carbonate Bedrock:	\$0	
<b>Harmful Algal Bloom</b>	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
<b>Hazardous Substance</b>	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
<b>Infestation</b>	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
<b>Severe Weather</b>	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:	\$5,056	High
						100 -Year Loss:	\$170,820	
						500-year Loss:	\$1,012,529	
<b>Severe Winter Weather</b>	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
<b>Wildfire</b>	Wildfire Fuel Hazard areas (High, Very High, Extreme)	Wildfire:	3	Wildfire:	3	Wildfire:	\$37,087,726	Moderate



**REPETITIVE FLOOD LOSSES**

There is no repetitive loss data is available as the Borough does not participate in the NFIP.

**CRITICAL FACILITIES**

There are no NFIP-mapped floodplains in the Borough.

**ADDITIONAL IDENTIFIED VULNERABILITIES**

The Borough did not identify any additional vulnerabilities within their community:

**HAZARD AREA EXTENT AND LOCATION**

Hazard area extent and location maps were generated for the Borough of Chester 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 Chester has significant exposure. Refer to Figures 9.7-1 and 9.7-2.

**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; 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 factoring in their capabilities to withstand impacts and rebound after the event. The table below summarizes the hazard rankings of potential natural hazards for the Borough of Chester. The Borough of Chester 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. The Borough reviewed the results of the hazard ranking as shown below and confirmed the indicated ranking in agreement with the calculated results for all hazards.

**Table 9.7-14. Borough of Chester Hazard Ranking Input**

Dam Failure	Drought	Earthquake	Extreme Temperature	Flood	Geological Hazard
Low	Medium	Medium	Medium	Low	Low

Harmful Algal Bloom	Severe Storm	Severe Winter Storm	Wildfire	Hazardous Substances	Disease Outbreak	Infestation
Low	High	High	Low	Medium	Medium	Medium



### 9.7.7 Mitigation Strategy and Prioritization

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

#### PAST MITIGATION INITIATIVE STATUS

The following table summarizes the jurisdiction’s progress on their mitigation strategy identified in the 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 9.7-15. 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 #
CB-1: Backup Power for Municipal Building: Install back-up power for the Municipal Building at 50 North Road, which houses Police, DPW, Board of Education, warming center, and most municipal departments.	Administration, Mayor	No progress. Generator quote has been received. No \$ available	Yes	2020-Chester Borough-001
CB-2: Undergrounding Electric Utilities: Hardening/retrofitting and burying utility lines within the Borough that are identified as particularly vulnerable to power outages, specifically Fairmount Avenue, Grove Street, Budd Avenue, Hillside, and Main Street.	Administration, Mayor	No progress. Generator quote has been received. No \$ available. Main trunk lines under Main St. and Hillside-high priority areas.	Yes	2020-Chester Borough-002
CB-3: Evaluate participation in NFIP: Evaluate the need for and benefits of joining the NFIP and join the NFIP if found to be worthwhile for the Borough and its constituents.	Engineer, as supported by the Mayor and Borough government	<b>No progress.</b>	Yes.	2020-Chester Borough-003

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

As it relates to Hazardous Materials, the Department of Public Works files the annual Right to Know Survey. As it relates to flooding mitigation, the Department of Public Works performs maintenance and clearing of all storm drains twice annually and maintenance and clearing of all culverts and detention/retention basins on an ongoing basis throughout the year.

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

While the Borough of Chester did not participate in the county-wide risk assessment workshop, the county-wide and individual results were provided and reviewed during a local mitigation meeting held at the Borough Hall on January 27, 2020 at which time detailed information was provided about assets exposed and vulnerable to the



identified hazards of concern. In lieu of participating in the mitigation action workshop, the Borough of Chester participated in an individual meeting with the consultant to review problem statements and update the mitigation strategy. The Borough 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 9.7-16 summarizes the comprehensive range of specific mitigation initiatives the Borough of Chester 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 9.7-17 summarizes the evaluation of each mitigation initiative and the resulting priority, listed by Action Number.





Table 9.7-16. 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-Chester Borough -001	Backup Power for Municipal Building: Install back-up power for the Municipal Building at 50 North Road, which houses DPW, Board of Education, warming center, and most municipal departments.	The Borough Municipal Building is a designated critical and lifeline facility and does not have back up power for uninterrupted power supply for frequent power outages during which necessitates administrative shutdown at these times.	The Borough Engineer will research what size generator is necessary to supply backup power the Municipal building. The Borough will then purchase and install a generator.	Existing	All	1A, 3G	Administrator Mayor	FEMA HMGP and PDM, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget	High	Medium	Short	High	SIP	SP
2020-Chester Borough -002	Undergrounding Electric Utilities	Above ground electrical utilities (power, cable, telephone) are vulnerable to damage caused by fallen limbs during severe weather events which result in potential utility interruptions.	Hardening/retrofitting and burying utility lines within the Borough that are identified as particularly vulnerable to power outages, specifically Fairmount Avenue, Grove Street, Budd Avenue, Hillside, and Main Street.	Existing	Severe Storm, Severe Winter Storm	3A, 3G, 5D	Administrator, Mayor	FEMA HMA, local match	High	High	Short	Medium	SIP	SP
2020-Chester Borough -003	NFIP Initiative	Currently the town does not participate in the NFIP,	Evaluate participation in NFIP: Evaluate the need for and	Existing	Flood	3B	Engineer, as supported by the	Operating Budget	High	Low	Short	Medium	LPR	PR



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
		precluding property owners from obtaining NFIP insurance.	benefits of joining the NFIP and join the NFIP if found to be worthwhile for the Borough and its constituents.				Mayor and Borough government							
2020-Chester Borough -004	All-Hazards Public Education Program	There is a need to protect residents from harmful potential natural hazards on private property and to educate the public on the impacts/mitigation of natural hazards.	Develop a multi-pronged educational outreach program to provide critical information to residents on methods to reduce their vulnerability to natural hazards such as vegetation management, ash tree removal, etc.	Yes	All	1A, 3E	Borough Administrator	Operating budget, HMA funding	Medium	Low	Short	High	EAP	PI
2020-Chester Borough -005	Mobile Municipal Message Board	The Borough needs an effective method to distribute information during hazard events when internet and utilities down.	Purchase a variable message board trailer to deploy in affected areas.	Not applicable	All	1A	Borough Administrator	Operating budget,	High	Low	Short	High	LPR	PR

Notes:

Acronyms and Abbreviations:

CAV Community Assistance Visit  
 CRS Community Rating System  
 DPW Department of Public Works

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:





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

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 9.7-17. 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-Chester Borough-001	Backup Power for Municipal Building: Install back-up power for the Municipal Building at 50 North Road, which houses Police, DPW,	1	1	1	0	0	1	0	0	1	1	1	1	0	1	9	High



Initiative Number	Mitigation Initiative Name	Life Safety	Property Protection	Cost Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
	Board of Education, warming center, and most municipal departments.																
2020-Chester Borough-002	Undergrounding Electric Utilities: Hardening/retrofitting and burying utility lines within the Borough that are identified as particularly vulnerable to power outages, specifically Fairmount Avenue, Grove Street, Budd Avenue, Hillside, and Main Street.	1	1	-1	1	1	0	0	0	1	1	1	1	1	0	7	Medium
2020-Chester Borough-003	Evaluate participation in NFIP: Evaluate the need for and benefits of joining the NFIP and join the NFIP if found to be worthwhile for the Borough and its constituents.	1	1	1	1	0	1	1	0	1	0	0	1	0	0	8	Medium
2020-Chester Borough-004	All-Hazards Public Education Program	1	0	1	1	0	1	1	0	1	1	1	1	0	0		High
2020-Chester Borough-005	Municipal Message Board	1	0	1	1	1	1	1	0	1	1	1	1	1	0	11	High

Notes: Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions.



Table 9.7-18. 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
<b>Dam Failure</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001		
<b>Disease Outbreak</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001		
<b>Drought</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001		
<b>Earthquake</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001		
<b>Extreme Temperature</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001		
<b>Flood</b>	2020-Chester Borough-003, Chester Borough-005		Chester Borough-004			Chester Borough-001		2020-Chester Borough-003
<b>Geological Hazards</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001		
<b>Harmful Algal Bloom</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001		
<b>Hazardous Substances</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001,		
<b>Infestation</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001,		
<b>Severe Weather</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001, Chester Borough-002	Chester Borough-002	
<b>Severe Winter Weather</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001, Chester Borough-002	Chester Borough-002	
<b>Wildfire</b>	Chester Borough-005		Chester Borough-004			Chester Borough-001		

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

### 9.7.8 Staff and Local Stakeholder Involvement in Annex Development

The Borough of Chester 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).

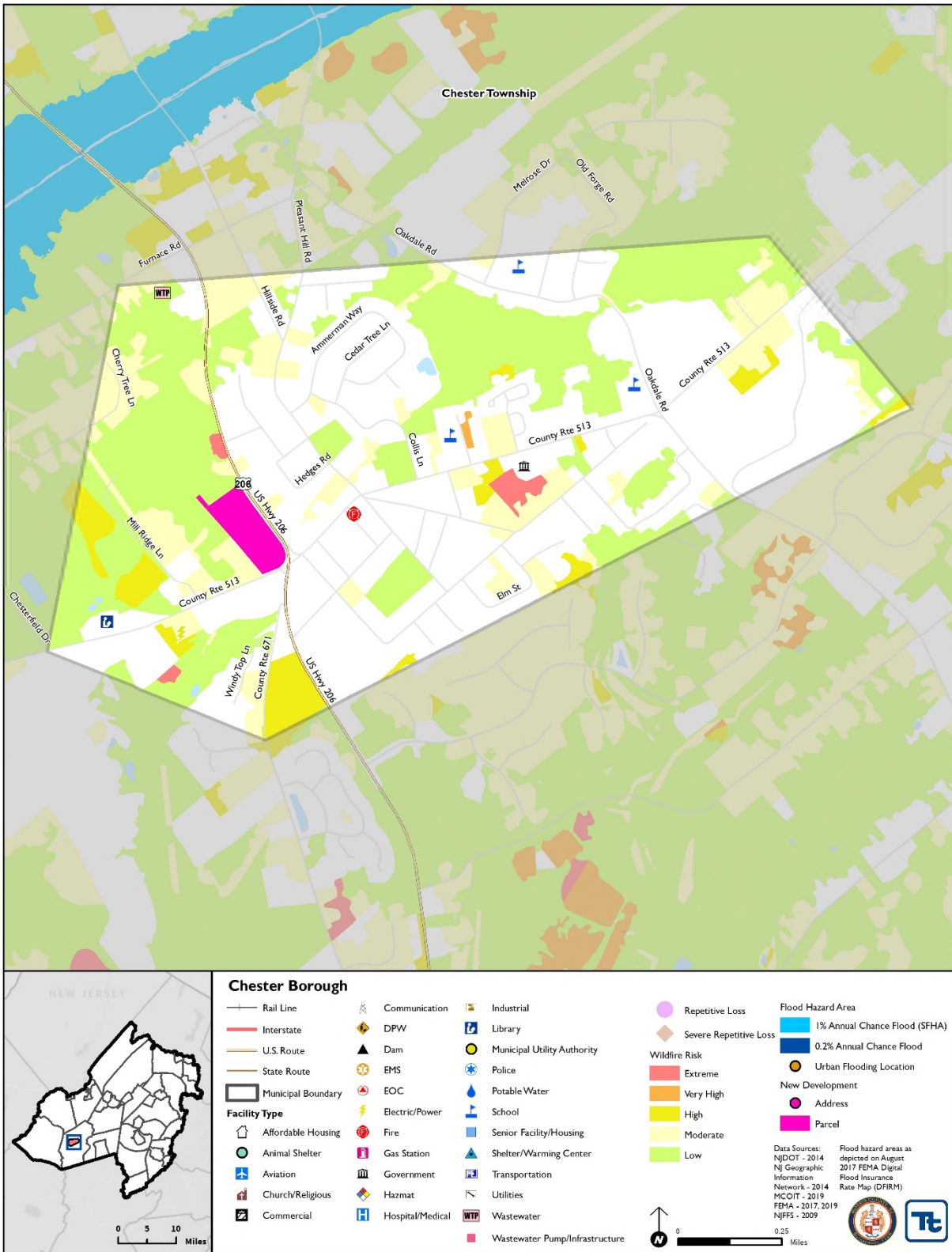


**Table 9.7-19. Contributors to the Annex**

<b>Entity</b>	<b>Title</b>	<b>Method of Participation</b>
Doreen Probasco	Municipal Clerk	Attended local mitigation meeting, provided input on capabilities, project progress, and new mitigation strategies
Steven Bolio	Borough Engineer	Attended local mitigation meeting, provided input on capabilities, project progress, and new mitigation strategies
Ed Windt	OEM Coordinator	Attended local mitigation meeting, provided input on capabilities, project progress, and new mitigation strategies
Margaret Nordstrom	Borough Administrator	Attended local mitigation meeting, provided input on capabilities, project progress, and new mitigation strategies
Janet Hoven	Borough Mayor	Attended local mitigation meeting, provided input on capabilities, project progress, and new mitigation strategies
Alan Alpaugh	DPW	Attended local mitigation meeting, provided input on capabilities, project progress, and new mitigation strategies
Scott Beam	DPW	Attended local mitigation meeting, provided input on capabilities, project progress, and new mitigation strategies
Kerry Brown	Zoning	Attended local mitigation meeting, provided input on capabilities, project progress, and new mitigation strategies



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





Action Worksheet			
<b>Project Name:</b>	Backup Power for Municipal Building Critical Facility		
<b>Project Number:</b>	2020-Chester Borough-001		
<b>Hazard(s) of Concern:</b>	All Hazards		
<b>Description of the Problem:</b>	The Borough Municipal Building is a designated critical and lifeline facility and does not have back up power for uninterrupted power supply for frequent power outages during which necessitates administrative shutdown at these times.		
<b>Description of the Solution:</b>	The Borough Engineer will research what size generator is necessary to supply backup power the Municipal building. The Borough will then purchase and install a generator.		
<b>Is this project related to a Critical Facility or Lifeline?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Level of Protection:</b>	Not applicable	<b>Estimated Benefits (losses avoided):</b>	Ensures continuity of operations; provides a shelter and warming center for residents
<b>Useful Life:</b>	20 years	<b>Goals Met:</b>	1A, 3G
<b>Estimated Cost:</b>	\$65,000	<b>Mitigation Action Type:</b>	Structure and Infrastructure Projects (SIP)
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Immediately after funding is received or about 1-2 years
<b>Estimated Time Required for Project Implementation:</b>	1-2 years	<b>Potential Funding Sources:</b>	FEMA HMA, local match
<b>Responsible Organization:</b>	Borough Administrator	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues, vulnerable populations do not have access to safe areas.
	Install wind turbine electrical generation facility	\$100,000	Weather dependent; poses a threat to wildlife; expensive repairs if needed
	Install solar panels	\$100,000	Weather dependent; need large amount of space for installation; expensive if repairs needed
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			





Action Worksheet		
<b>Project Name:</b>	Backup Power for Municipal Building Critical Facility	
<b>Project Number:</b>	2020-Chester Borough-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of Community Center.
Property Protection	1	Project will protect Community Center from power loss.
Cost-Effectiveness	1	
Technical	1	This project is technically feasible.
Political	0	
Legal	1	The town has the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	0	
Social	1	This supports all segments of the population equally.
Administrative	1	This can be implemented using current resources
Multi-Hazard	1	All hazards
Timeline	0	1-2 years
Agency Champion	0	
Other Community Objectives	1	Improves town's capabilities of supporting the needs of vulnerable populations
<b>Total</b>	1	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	Undergrounding Electric Utilities:		
<b>Project Number:</b>	Chester Borough-002		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Severe Storm, Severe Winter Storm		
<b>Description of the Problem:</b>	Above ground electrical utilities (power, cable, telephone) are vulnerable to damage caused by fallen limbs during severe weather events which result in potential utility interruptions.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	Hardening/retrofitting and burying utility lines within the Borough that are identified as particularly vulnerable to power outages, specifically Fairmount Avenue, Grove Street, Budd Avenue, Hillside, and Main Street.		
<b>Is this project related to a Critical Facility or Lifeline?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<b>Level of Protection:</b>	Not applicable	<b>Estimated Benefits (losses avoided):</b>	Reduction or elimination of utility interruption and increase of life safety
<b>Useful Life:</b>	30 years	<b>Goals Met:</b>	3A, 3G, 5D
<b>Estimated Cost:</b>	>\$100,000	<b>Mitigation Action Type:</b>	SIP, PR
Plan for Implementation			
<b>Prioritization:</b>	Medium	<b>Desired Timeframe for Implementation:</b>	1 year
<b>Estimated Time Required for Project Implementation:</b>	1 to 5 years	<b>Potential Funding Sources:</b>	FEMA HMA, local match
<b>Responsible Organization:</b>	Borough Administrator	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation Plan
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Problem continues.
	Underground utilities	>\$100,000	Reduction or elimination of utility interruption and increase of life safety
	Fund installation of micro grid to support the target areas	>\$1M	Only partial solution covering electrical needs and not other utilities.
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Undergrounding Electric Utilities:	
<b>Project Number:</b>	Chester Borough-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	This will support the continuity of life safety functions by reducing or eliminating utility interruptions.
Property Protection	1	This will reduce the potential for damage to above ground utilities due to impact by falling debris
Cost-Effectiveness	-1	This is a high investment project.
Technical	1	This is technically feasible.
Political	1	There is public and political support to implement this project.
Legal	0	
Fiscal	0	
Environmental	0	
Social	1	This project will not adversely affect a portion of the population.
Administrative	1	The town has the administrative capabilities to the personnel and administrative capabilities to implement the action
Multi-Hazard	1	
Timeline	1	This can be implemented within 5 years.
Agency Champion	1	Elected officials support this project.
Other Community Objectives	0	
<b>Total</b>	7	
<b>Priority (High/Med/Low)</b>	Medium	



Action Worksheet			
<b>Project Name:</b>	Municipal Message Board		
<b>Project Number:</b>	Chester Borough-005		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	All Hazards		
<b>Description of the Problem:</b>	The borough needs an effective method to distribute information during hazard events when internet and utilities down.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	Purchase a variable message board trailer to deploy in affected areas.		
<b>Is this project related to a Critical Facility or Lifeline?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<b>Level of Protection:</b>	Not applicable	<b>Estimated Benefits (losses avoided):</b>	Provide critical information to residents during hazard events
<b>Useful Life:</b>	30 years	<b>Goals Met:</b>	1A
<b>Estimated Cost:</b>	\$25,000	<b>Mitigation Action Type:</b>	PR
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	1 year
<b>Estimated Time Required for Project Implementation:</b>	1 year	<b>Potential Funding Sources:</b>	Operating Budget
<b>Responsible Organization:</b>	Borough Administrator, OEM, DPW	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation Plan, EOP
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Problem Continues
	Use reverse 911 system	To be determined	Will not provide information to visitors or those with phones not available.
	Use mobile Public Address System	\$100,000	Will not provide full, simultaneous coverage and requires manual intervention.
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Municipal Message Board	
<b>Project Number:</b>	Chester Borough-005	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Improve alert capabilities
Property Protection	0	Provides warning to enable residents to prepare for an imminent threat.
Cost-Effectiveness	1	Low cost solution
Technical	1	This is a feasible solution.
Political	1	There is political will to support this.
Legal	1	Town has authority to implement.
Fiscal	1	Budgetary constraints
Environmental	0	Complies with environmental regulations.
Social	1	Action will not cause relocation of lower income people.
Administrative	1	
Multi-Hazard	1	Multi-Hazard
Timeline	1	Can be completed in less than 5 years
Agency Champion	1	OEM
Other Community Objectives	0	
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	