



## 9.8 Town of Philipstown

This section presents the jurisdictional annex for the Town of Philipstown. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Philipstown’s risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

### 9.8.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Philipstown’s hazard mitigation plan primary and alternate points of contact.

**Table 9.8-1. Hazard Mitigation Planning Team**

Primary Point of Contact	Alternate Point of Contact
Greg Wunner, Code Enforcement Officer 238 Main Street, PO Box 155 Cold Spring, NY 10516 (845) 265-5202 gwunner@philipstown.com	Richard Shea, Supervisor 238 Main Street, PO Box 155 Cold Spring, NY 10516 (845) 265-5200 supervisor@philipstown.com
<b>NFIP Floodplain Administrator</b>	
Greg Wunner, Code Enforcement Officer 238 Main Street, PO Box 155 Cold Spring, NY 10516 (845) 265-5202 gwunner@philipstown.com	

### 9.8.2 Municipal Profile

The Town was first settled around 1715. Established in 1788 as one of the three original towns in what is now Putnam County, Philipstown's main population centers are the Village of Cold Spring, the hamlet of Garrison, Continental Village, and the Village of Nelsonville. In 1806, part of the town was used to form the town of Fishkill. Putnam Valley was part of Philipstown until 1839, and a small portion of the town north of Putnam Valley was transferred to Kent in 1877. Today, the Town is governed by a town supervisor and a five-member town board.

The Town is located in the western part of Putnam County. It was a total area of 51.5 square miles, of which 48.9 square miles is land and 2.7 square miles is water.

According to the 2010 U.S. Census, the population of the Town of Philipstown was 9,662. As of 2019, the population estimate for the town was 9,675 residents – a marginal increase.

### 9.8.3 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 9.8-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.8-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.



Table 9.8-2. 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* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	10	0	8	8	6	0	4	0	5	0
Multi-Family	0	0	0	0	0	0	0	0	1	0
Other (commercial, mixed-use, etc.)	0	0	0	0	0	0	1	0	1	0
Total	10	0	8	8	6	0	5	0	7	0
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
Recent Major Development and Infrastructure from 2015 to Present										
20 Hudson Highlands Reserve	Residential	25 lot residential subdivision		East side of US Route 9 between Horton Road and East Mountain Road;		N/A		Pending		
ENTERGY	Non-Residential	20,000 sq. ft. Emergency Operations Building with associated access, parking and on-site utilities		-		N/A		-		
Glassbury Court (aka Quarry Pond)	Residential	54 single-family homes in Adult Active community		16-1-38		NEHRP Soil, Wildfire Interface, Wildfire Intermix		Complete		
Graymoor - New Friary	Residential	Remove existing 21,750 sq. ft. friary, construct new 29,270 sq. ft. friary & related infrastructure improvements		-		N/A		Pending		
Olspan, LLC	Non-Residential	Renovation of existing 10,800 sq. ft. light manufacturing / office building & 8,700 sq. ft. addition for personal property storage		38.3-24.2		NEHRP Soil, Wildfire Intermix		Complete		
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None										

SFHA Special Flood Hazard Area (1% flood event)

\* Only location-specific hazard zones or vulnerabilities identified.





### 9.8.4 Capability Assessment

The Town of Philipstown performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 6 (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 planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- The municipality’s understanding of local capacity for adapting to current and future risks and changing conditions.

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 in Capability Assessment (Section 9.8.4). The Town of Philipstown 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 regulatory tools that are available to the Town of Philipstown and where hazard mitigation has been integrated.

**Table 9.8-3. Planning, Legal, and Regulatory Capability**

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide mitigation action # if applicable
<b>Codes, Ordinances, &amp; Requirements</b>							
Building Code	Yes	Chapter 62	Local and State	Code Enforcement	Yes	No	-
<i>Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.</i>							
Zoning Code	Yes	Chapter 175	Local	Code Enforcement	No	No	-
<b>Comment:</b> <ul style="list-style-type: none"> <li>• Chapter 175, Zoning. This Zoning Law enables Philipstown to protect the diverse "character" of the Town while also giving landowners a range of options and choices for the use, development, and conservation of their land. It is designed to achieve the community's goals as expressed in the Town's Comprehensive Plan while respecting the property interests of landowners. This chapter regulates the location, design, construction, alteration occupancy, and use of structures and the use of land in the Town of Philipstown, dividing the Town into land use districts.</li> <li>• This Chapter includes the creation of a Floodplain Overlay District (FPO) and a Cold Spring Watershed Overlay District (WSO) and the Aquifer Overlay District (AQO). The purpose of the FPO is to control development within the one-hundred-year floodplain in order to minimize flood damage and protect water resources. The purpose of the WSO is to protect the water supply of the Villages of Cold Spring and Nelsonville, which includes the entire watershed of Foundry Brook. The purpose of the AQO is to protect groundwater resources that provide drinking water for private wells and that may be used in the future to provide public water supplies.</li> </ul>							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide mitigation action # if applicable
						<ul style="list-style-type: none"> <li>Activities, uses, and construction which involve land disturbance on slopes 20% or greater and within steep terrain wetland/watercourse transition areas and which are subject to the requirements of this Chapter shall be referred to the Philipstown Conservation Advisory Council/ Conservation Board for review and advice.</li> <li>Excavation, filling, and grading necessary for the construction of a structure for which a building permit has been issued shall be permitted, provided that it does not change the runoff characteristics of the property or otherwise adversely affect natural drainage or structural safety of buildings or lands, cause erosion or sedimentation, or create any noxious conditions or hazard to public health or safety.</li> <li>All activities involving the use or storage of flammable or explosive materials shall be provided with adequate safety devices against the hazard of fire and explosion, with adequate fire-fighting and fire suppression equipment and devices standard in the industry.</li> </ul>	
Subdivision Regulations	Yes	Chapter 112	Local	Planning Board	No	No	-
<b>Comment:</b> Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	Yes	Title 6, Ch. X, 17-7,8,70	Local	SMO	Yes	No	-
<b>Comment:</b> <ul style="list-style-type: none"> <li>Chapter 147A, Stormwater Management and Erosion and Sediment Control. The purpose of this chapter is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction. This chapter seeks to meet those purposes by achieving the following objectives:               <ul style="list-style-type: none"> <li>A. Meet the requirements of minimum measures 4 and 5 of the SPDES General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s). Permit No. GP-02-02 or as amended or revised;</li> <li>B. Require land development activities to conform to the substantive requirements of the NYS Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities GP-02-01 or as amended or revised;</li> <li>C. Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and streambank erosion and maintain the integrity of stream channels.</li> </ul> </li> <li>No application for approval of a land development activity shall be reviewed until the appropriate board has received a stormwater pollution prevention plan (SWPPP) prepared in accordance with the specifications in this chapter.</li> <li>The Town of Philipstown Stormwater Management Officer is responsible for conducting inspections of stormwater management practices (SMPs). All applicants are required to submit as-built plans for any stormwater management practices located on site after final construction is completed.</li> </ul>							
Post-Disaster Recovery Plan or Regulation	No	-	Local	-	No	-	-
<b>Comment:</b>							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	NA	NA
<b>Comment:</b> In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	Yes	October 20, 2006	Local	Town Board	No	No	-
<b>Comment:</b> In New York State, virtually all land use regulation, which is the primary tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village	Local	Local Planning Board	No	No	-



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		Law s. 7-725a					
<p><b>Comment:</b> The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.</p>							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State; Local	Max Garfinkel Conservation Board/natural resources officer	Yes	No	-
<p><b>Comment:</b> New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019</p>							
Flood Damage Prevention Law	Yes	Chapter 90 Chapter 90-16 & 90-17 State mandated BFE+2 for new construction and substantial improvements	Local, State, Federal	?	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	No	-
<p><b>Comment:</b> A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> <li>Chapter 90, Flood Damage Prevention. The Town Board of the Town of Philipstown finds that the potential and/ or actual damages from flooding and erosion may be a problem to the residents of the Town of Philipstown and that such damages may include destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life.</li> <li>It is the purpose of this Chapter to: A. To protect human life and health; B. To minimize expenditure of public money for costly flood-control projects; C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; D. To minimize prolonged business interruptions; E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, sewer lines, streets and bridges located in areas of special flood hazard; F. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas; G. To provide that developers are notified that property is in an area of special flood hazard; and H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</li> <li>The Town Board of the Town of Philipstown shall appoint by resolution the floodplain administrator as the local administrator to administer and enforce this chapter by granting or denying floodplain development permits</li> <li>A floodplain development permit is hereby required for all construction and other development to be undertaken in areas of special flood hazard in this community</li> <li>The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard: (1) The base flood elevation, special flood hazard zone and floodway as shown on the FIRM shall be delineated on the plan; (2) Proposals shall be consistent with the need to minimize flood damage; (3) Public utilities and facilities, such as sewer, gas, electrical and water systems, shall be located and constructed so as to minimize flood damage; and (4) Adequate drainage shall be provided to reduce exposure to flood damage.</li> <li>On streams with a regulatory floodway, as shown on the Flood Boundary and Floodway Map or the Flood Insurance Rate Map adopted in § 90-6, no new construction, substantial improvements or other development in the floodway (including fill) shall be permitted.</li> <li>The following standards apply to new and substantially improved residential structures located in areas of special flood hazard; Within Zones A1-A30, AE and AH and also Zone A if base flood elevation data are available, new construction and substantial improvements shall have the lowest floor (including basement elevated to or above two feet above the base flood elevation.</li> <li>The following standards apply to new and substantially improved commercial, industrial and other nonresidential structures located in areas of special flood hazard; Within Zones A1-A30, AE and AH, and also Zone A if base flood elevation data are available, new construction and substantial improvements of any nonresidential structure shall either: (1) Have the lowest floor, including basement or cellar, elevated to or above two feet above the base flood elevation; or (2) Be floodproofed so that the structure is watertight below two feet above the base flood elevation, including attendant utility and sanitary facilities, with walls substantially impermeable to the passage of water.</li> <li>In order to prevent potential flood damage to certain facilities that would result in serious danger to life and health, or widespread social or economic dislocation, no new critical facility shall be located within any area of special flood hazard or within any five-hundred-year flood zone shown as a B Zone or a Shaded X Zone on the community's Flood Insurance Rate Maps.</li> </ul>							
Municipal Separate Storm Sewer System	Yes	EPA Phase II Stormwater Rule; Chapter	Local, State, Federal	Max Garfinkel Conservation	Yes	No	-



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(MS4) Regulation		93		Board/natural resources officer			
<b>Comment:</b> This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes	No	-
<b>Comment:</b> The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	Yes	NYS Executive Law, Article 75	Local	?	Yes	No	-
<b>Comment:</b> The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019. The Town participates in the Climate Smart Initiative.							
Disaster Recovery Ordinance	No	-	Local	-	No	-	-
<b>Comment:</b>							
Disaster Reconstruction Ordinance	No	-	Local	-	No	-	-
<b>Comment:</b>							
Other Applicable Codes, Ordinances, & Requirements	-	-	-	-	-	-	-
<b>Comment:</b>							
<b>Planning Documents</b>							
Comprehensive Plan	Yes	Adopted March 9, 2006	Local	Town Board	No	No	Yes
<b>Comment:</b> Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level.							
<ul style="list-style-type: none"> <li>Philipstown Comprehensive Plan 2006. This Comprehensive Plan is a shared vision for the community's future; it blends the issues, challenges, and options facing the Town. It is Philipstown's response to the challenge of fostering economic development and a mixture of housing that is sensitive to its natural resources and the character of the community. As in the past, it relies on the strength and support of the community to make it a success.</li> <li>The goals of the Plan include to; Conserve Philipstown's rural, historic and river-community character, Expand recreational opportunities to offer a wider variety and greater capacity to meet current and future demand, Protect Philipstown's natural resources, Improve safety and aesthetics of roads, Locate new development where it can be supported by existing infrastructure, and develop new infrastructure only where it is supportive of the Town's development and conservation goals, Revise land use regulations to implement the Comprehensive Plan and streamline the land use approval and enforcement process.</li> <li>To work toward the Plan's goals it includes recommendations, such as, Discourage intensive development in areas not designated for future growth in the Comprehensive Plan, allowing only low-density development; Develop trail networks, including identifying bike trail opportunities to connect different areas of town, developing linkages for the north-south Greenway Trail and the east-west Northern Putnam Trail, and maintaining the existing horse trail network and consider additional horse trails where appropriate; Improve riverfront access using the Putnam Riverfront Alliance inventory of access points (appendix H). Riverfront plans should be developed closely with the Village of Cold Spring, Philipstown, Putnam County and all other stakeholders; Develop a master plan for all roads in the town; Where appropriate, introduce "traffic-calming" design measures on roads; Proactively engage the county and state in road issues; Concentrate new commercial and industrial development in designated mixed-use or industrial areas; Locate denser development adjacent to existing areas of settlement; explore use of central sewer and water where appropriate; and consider developing master plans that balance community character and development potential. Update in progress at time of plan draft.</li> </ul>							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide mitigation action # if applicable
Capital Improvement Plan	No	General Municipal Law Section 99-g.	Local	-	No	-	-
<b>Comment:</b> A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	?	No	No	-
<b>Comment:</b> Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	No	-	Local	?	No	-	-
<b>Comment:</b> The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Chapter 93	Local	?	No	No	-
<b>Comment:</b> Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	Yes	March 9, 2006	Local	Town Board	Yes	Yes	NA
<b>Comment:</b> <ul style="list-style-type: none"> <li>Final Draft, Philipstown Natural Resource and Open Space Protection Plan. The purpose of this plan is to establish and guide an efficient and effective way to protect and manage Philipstown's natural resources according to the goals of the Philipstown Comprehensive Plan. The goal of this plan is to insure that our natural resources continue to be viable and sustainable, serving as the foundation for a healthy and thriving Philipstown. The Plan covers all of the Town of Philipstown, excluding the Villages of Cold Spring and Nelsonville.</li> <li>This Plan recommends; a. adopt an Open Space Index; b. designate the Conservation Advisory Council as a Conservation Board; c. establish a Community Preservation Fund, in order to preserve properties of importance to Philipstown's natural resources or community character; d. establish a staff/consulting position of Natural Resource Review Officer to conduct conservation analysis of applications; e. enact changes to the zoning and other land use codes and promote public education and outreach programs to better protect natural resources.</li> <li>It is further recommended that; The town board should seek NYS legislative authority to establish by local law a Community Preservation Fund (CPF), in order to acquire properties identified in the prioritized Open Space Index as important for the protection of natural resources and community character; and additional recommendations should be implemented through amendments to the Town Code, including the zoning law, land development law, as well as through land preservation measures, code enforcement, and public education. These recommendations include such actions as; a) Require applicants to identify and map wetlands under ¼ acre and all known vernal pool areas on development proposal plans; b) Establish regulated areas around existing vernal pools. c) Extend current steep slopes regulations to commercial and industrial projects; d) Review current protection measures along stream banks and shorelines to maintain the quality of surface and groundwater. Regulated areas should provide sufficient setbacks and buffers along high quality wetlands and watercourses; e) When creating new roads and driveways, establish a road buffer zone around surface water bodies relative to the surrounding slope; f) Better understand our groundwater resources and develop aquifer overlay zones to protect our aquifers and important drinking water sources; and g) To help protect the drinking water source for the Village of Cold Spring, notify the Village of Cold Spring of all development proposals in the Foundry Brook watershed.</li> <li>The Town prepared an open space index update within the last four years.</li> </ul>							
Urban Water Management Plan	No	-	Local	?	No	-	-
<b>Comment:</b>							
Habitat Conservation Plan	Yes	March 9, 2006	Local	Town Board	No	No	-
<b>Comment:</b> Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program. <ul style="list-style-type: none"> <li>See Natural Resource and Open Space Protection Plan above.</li> </ul>							



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Economic Development Plan	No	-	Local	-	No	-	-
<b>Comment:</b> An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive Plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	No	Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations	Local	-	Yes	NA	NA
<b>Comment:</b> Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas; 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
<b>Comment:</b> Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	Yes or No	Chapter 175-47 also in zoning code; or in chapter 125 zoning	Local	-	No	-	-
<b>Comment:</b>							
Transportation Plan	No	-	Local	-	No	-	-
<b>Comment:</b>							
Agriculture Plan	No	NYCRR Part 390 Agricultural and Farmland Protection -	Local	?	Yes	-	-
<b>Comment:</b> Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	-	-	-	-	-	-	-
Comment: <ul style="list-style-type: none"> <li>Local Conservation Board, Chapter 93</li> </ul>							
<b>Response/Recovery Planning</b>							
Comprehensive Emergency Management Plan	No	NYS Executive Law, Article 2B	Local	Local OEM	Yes	-	-
<b>Comment:</b> The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	Local OEM	Yes	-	-
<b>Comment:</b> THIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							





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Post-Disaster Recovery Plan	No	-	Local	-	No	-	-
<b>Comment:</b>							
Continuity of Operations Plan	No	-	Local	-	No	-	-
<b>Comment:</b> According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	No	-	Local	-	?	-	-
<b>Comment:</b>							
<b>Other:</b> Emergency Response Plan	No	-	Local	-	No	-	-
<b>Comment:</b> Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

**Table 9.8-4. Development and Permitting Capability**

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes- Building Department
Permits are tracked by hazard area. For example, floodplain development permits.	Yes; most of floodplains occur to adjacent wetland. Overlap w conservation board
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No. Approximately 53% of the Town is preserved open space.

**Administrative and Technical Capability**

The table below summarizes potential staff and personnel resources available to the Town of Philipstown.

**Table 9.8-5. Administrative and Technical Capabilities**

Resources	Available? (Yes or No)	Department/ Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	Under the Town Law, the Philipstown Planning Board has certain duties and responsibilities, such as to prepare and adopt the Master Plan, approve plats and make reports and recommendations to the Town Board as requested.
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	Yes	Conservation Board
Economic Development Commission/Committee	No (County)	-
Warning Systems / Services (Mass notification system, outdoor warning signals)	Yes	Indian Point sirens
Maintenance programs to reduce risk	Yes	Highway Department- tree cutting, storm drain maintenance
Mutual aid agreements	Yes	County



Resources	Available? (Yes or No)	Department/ Agency/Position
<b>Technical/Staffing Capability</b>		
Planners or engineers with knowledge of land development and land management practices	No	Town Engineer (Consulting)
Engineers or professionals trained in building or infrastructure construction practices	No	By need (AKRS Consulting)
Planners or engineers with an understanding of natural hazards	No	-
Staff with expertise or training in benefit/cost analysis	Yes	Code Enforcement
Professionals trained in conducting damage assessments		CEDAR- group of data collectors (State) that are primarily code enforcement that go from area to area to assess water reach (“windshield inspections”)—not sure if deployed to Philipstown. Most comes through emergency services
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	Code Enforcement
Scientist familiar with natural hazards	No	-
NFIP Floodplain Administrator (FPA)	Yes	Code Enforcement
Surveyor(s)	No	-
Emergency Manager	No	-
Grant writer(s)	No	-
Resilience Officer	No	-
Other	No	-

**Fiscal Capability**

The table below summarizes financial resources available to the Town of Philipstown.

**Table 9.8-6. Fiscal Capabilities**

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	No
Capital improvements project funding	No
Authority to levy taxes for specific purposes	Sometimes, Town Board
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	No
Open Space Acquisition funding programs	No
Other	No

**Education and Outreach Capability**

The table below summarizes the education and outreach resources available to the Town of Philipstown.

**Table 9.8-7. Education and Outreach Capabilities**

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
---	-------------------------



Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	Clerk (Tara)
Hazard mitigation information available on your website; if yes, describe	Yes- usually in Cold Spring. Also have municipal channel where info is posted
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	Yes- Climate Smart
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Post on website; Town papers; email blast list. E-mail blast/website for quick info; municipal channel
Warning systems for hazard events; if yes, briefly describe.	No – sirens are only for Indian Point and for fire
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Yes- fire department/prevention week; fire drills; school shooting drills; each school has IP evacuation plan
Other	No

### Community Classifications

The table below summarizes classifications for community programs available to the Town of Philipstown.

**Table 9.8-8. Community Classifications**

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
NYSDEC Climate Smart Community	Yes	Registered	June 6, 2017
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
Other	No	-	-

Note:

- N/A Not applicable
- NP Not participating
- Unavailable

### Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

**Table 9.8-9. Adaptive Capacity of Climate Change**

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Drought	Medium
Disease Outbreak	Low





Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Earthquake	Medium
Extreme Temp	Medium
Flood	High
Harmful Algal Bloom	Low
Severe Storm	Medium
Severe Winter Storm	Medium
Terrorism	Low
Wildfire	Low

\*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.

#### NFIP Floodplain Administrator (FPA)

Greg Wunner, Code Enforcement Officer/Fire Marshall

#### National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Philipstown.

**Table 9.8-10. NFIP Summary**

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties
Philipstown	72	47	\$1,119,896	13

Source: FEMA 2020  
 Notes: Policies, claims, and repetitive loss statistics provided by FEMA Region 2, and current as of July 28, 2020. The total number of repetitive loss properties does not include severe repetitive loss properties  
 RL Repetitive Loss

#### Resources

None identified

#### Compliance History

None identified

#### Regulatory

None identified

### Additional Areas of Existing Integration

**Land Use Ordinances – Steep Slopes:** The Town adopted a Steep Slopes ordinance to help manage the risk of development in such hazard areas.

**Land Use Planning and Site Plan Review:** The Town has a Conservation Board that has statutory responsibility for land use planning and site plan review, and considers natural hazard risk areas during the review process.



The Natural Resource and Open Space Protection Plan was created according to goals set forth in the 2006 Philipstown Comprehensive Plan.

**NFIP and Floodplain Management:** The Reviewing Board or Zoning Administration Officer incorporates all mitigation measures to ensure compliance with watershed regulations. The Town supports non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL), such as acquisition/relocation or elevation depending on feasibility. Repetitively flooded areas include:

- Valley Lane, Garrison
- Sprout Brook Road, Garrison
- Brookside Road, Garrison
- Fishkill Road

**Climate Change and Sea Level Rise:** While considering, planning, engineering and undertaking projects along the Hudson River, the Town will review and incorporate the latest information on climate change and sea level rise projections. Current sea level rise and coastal flooding adaptation information is available from the following sources:

- NYSEERDA's ClimAid report and 2014 updated sea level rise projections (<http://www.nyserda.ny.gov/Cleantech-and-Innovation/Environment/Environmental-Research-and-Development-Technical-Reports/Response-to-Climate-Change-in-New-York.aspx>)
- Scenic Hudson's sea level rise mapper (<http://www.scenichudson.org/slr/mapper>)
- FEMA's Coastal Construction Manual (<https://www.fema.gov/media-library/assets/documents/3293>)
- NYS DEC's Climate Smart Communities program (<http://www.dec.ny.gov/energy/50845.html>)
- NYS Community Risk and Resiliency Act (adopted Sep 2014) ([http://assembly.state.ny.us/leg/?default\\_fld=&bn=A06558&term=2013&Summary=Y&Actions=Y&Memo=Y&Text=Y](http://assembly.state.ny.us/leg/?default_fld=&bn=A06558&term=2013&Summary=Y&Actions=Y&Memo=Y&Text=Y))

### Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

#### Evacuation Routes

Portions of Philipstown are located within the Indian Point Energy Center Energy Planning Zones. These zones include areas within ten miles of Indian Point, which is a nuclear power station anticipated to be decommissioned in 2021. According to the Putnam County Indian Point Emergency Guide, there are four county-specific response areas that include Lower Philipstown, Southern Philipstown (including Nelsonville and Cold Spring), Southern Putnam Valley, and Southwest Carmel. During an emergency at the plant requiring evacuation, the Emergency Guide directs residents of these areas to evacuate north and east to reception centers located in both Carmel and in Brewster. Major evacuation routes include Route 9D, Route 9, Peekskill Hollow Road, Sprout Book Road, Oscawana Road, Dennytown Road, Route 6N, and the Taconic State Parkway. Routes 9D and 9 and the Taconic State Parkway evacuate to Interstate 84 in Dutchess County, which continues east and south towards reception centers in the eastern portion of Putnam County.

#### Sheltering

In the case of a hazard event, Philipstown's schools, fire department, and recreation center may be able to be used as sheltering.



**Temporary Housing**

The Town does not have set-aside temporary housing locations, though did indicate that in the case of a major disaster, Town property such as parks can be utilized.

Continental Village- like a lake community; very tight, small side yards. Also the two villages. Public water and private septic. Pipes lay along/above ground.

**Permanent Housing**

The Town does not have set-aside permanent housing locations.

**9.8.5 Hazard Event History Specific to the Town of Philipstown**

Putnam County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Philipstown history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Putnam County. Table 9.8-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

**Table 9.8-11. Hazard Event History**

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
May 15, 2018	Thunderstorm Wind	No	Power outages and road closures were recorded following an afternoon thunderstorm.	While the event impacted the County, the Town did not identify damages or losses associated with this event.
August 3, 2018	Thunderstorm Wind	No	A microburst storm impacted Glynwood, resulting in 22 downed trees and some property damage.	While the event impacted the County, the Town did not identify damages or losses associated with this event.
March 9-10, 2020	Wildfire	No	A Metro-North diesel work train locomotive malfunctioned, sparking brush fires along the railroad tracks. The Steep terrain and weather conditions caused the wildfire to spread across Route 9D, burning 277 acres in the Highlands and damaging parked cars.	No structural damage was reported.

Notes:

- EM Emergency Declaration (FEMA)
- FEMA Federal Emergency Management Agency
- DR Major Disaster Declaration (FEMA)
- N/A Not applicable

**9.8.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities**

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the Town of Philipstown’s risk assessment results and data used to determine the hazard ranking.



**Critical Facilities**

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2’ above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

**Table 9.8-12. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Perkins East Pond Dam	Dam	Yes		-011

**Hazard Ranking**

This section provides 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) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as 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 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Putnam County as a whole. Therefore, each municipality 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 Town of Philipstown. The Town of Philipstown has reviewed the county hazard risk/vulnerability risk 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/vulnerability risk ranking, the Town did not modify their risk ranking.

**Table 9.8-13. Hazard Ranking Input**

Disease Outbreak	Drought	Earthquake	Extreme Temperature	Flood
Medium	Medium	Low	Medium	Medium
Harmful Algal Bloom	Severe Weather	Severe Winter Weather	Terrorism	Wildfire
Low	High	High	Medium	High

Note: The scale is based on the following hazard rankings as established in Section 5.3.

\*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality





## Identified Issues

The municipality has identified the following vulnerabilities within their community:

According to the 2013 FEMA Flood Insurance Study (FIS) for Putnam County, in the Town of Philipstown, after a heavy rainfall, Clove Creek rose five to 10 inches. This rise in channel height causes abutments of a bridge to erode significantly. The erosion has also continued along Clove Creek's overbanks. It was also noted that, at another time, the channel level reached the top of the bridge behind a restaurant located near U.S. Route 9 (FEMA FIS 2013).

In addition to those identified above, the municipality has identified the following vulnerabilities:

- There are few east-west routes crossing Philipstown due to the Town's geography. During accidents or hazardous situations, backups occur.
- Cloud Bank and Old Manitou Road – Old Manitou Station Road is at the base of a steep mountain slope. During a rain event the stormwater will wash out Old Manitou Road at Cloud Bank Road. Existed since developed 100 years ago.
- Brookside Drive and Valley Lane - Are located at the base of a steep mountain next to Sprout Brook Creek. During a rain event stormwater floods the street and homes. Existed since 1940's. Homes are flood damaged. Repetitive Loss through the NFIP. (*Action: 2020-Philipstown-001*)
- Barret Pond and Fishkill Road/Route 9: Barret Pond discharges water under a home. During a rain event the stormwater floods four homes creating repetitive losses. Existed since the 1950's. (*Action: 2020-Philipstown-002*)
- Old Albany Post Road: Drainage/flooding problems particularly affecting one residential property on the east side of Old Albany Post Road. (*Action: 2020-Philipstown-005*)
- Sprout Brook Road: Debris in stream from Old Albany Post Road storm erosion, increasing flood risk.
- Fishkill Road: Debris in Foundry Brook at the intersection of Fishkill Road and 301 for a distance of approximately 700 linear feet.
- All municipalities and relevant staff need E900/901 training. There are no county wide CERT teams. They would benefit from 2-3 CERT teams, east and west of the Parkway. (*Action: 2020-Philipstown-010*)
- Copperhead Mine Brook – Issue on Old Manitou Road and South Mountain Pass.
- 5 Old Albany Post Road and Upland Drive: Flooding drainage issues.
- Highland Road: Beaver dam issue.
- Philips Road Bridge: During a heavy rain event the Philipse Brook Creek bypasses the bridge on Philipsebrook Road causing severe erosion to the road.
- 183 South Highland Road at Saunders Farm Road: Flooding issue.
- Dangerous trees threatening utilities – need for better coordination with utility companies.
- Steep slopes are a concern, particularly for future development within such areas.
- NFIP Floodplain Mapping issues at Ashley Lane and Route 301. (*Action: 2020-Philipstown-009*)
- Insufficient sheltering to address needs west of the Parkway.
- Town Highway Garage - Truck wash area required for removing salt/calcium from vehicles.
- Radio Communications Tower at 59 Lane Gate Road lacks backup power (critical facility)
- Unregulated dams.

The Putnam County Hazard Mitigation Citizen survey did not yield any additional results.

### 9.8.7 Mitigation Strategy and Prioritization

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





**Past Mitigation Initiative Status**

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. 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 may also be found under ‘Capability Assessment’ presented previously in this annex.

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Table 9.8-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection	
PHI-1 (LOI #152)	Manitou Station Road	Flood	Town of Philipstown Highway Department	Raise a 500 foot section of Manitou Station Road two feet above storm surge. See Action Worksheet	Complete	Cost	N/A	1. Discontinue – project has been completed
						Level of Protection	N/A	
						Damages Avoided; Evidence of Success	N/A	
PHI-2 (LOI #156)	Old Manitou Road and Cloudbank Road	Flood	Town of Philipstown, Code Enforcement Officer	Using best management practices provide retention/detention of stormwater, re-contour slope to dissipate stormwater energy addition culverts under Old Manitou Road. See Action Worksheet	Unknown	Cost		1. Unknown
						Level of Protection		
						Damages Avoided; Evidence of Success		
PHI-3 (LOI #160)	Brookside and Valley Lane Mitigation	Flood	Town of Philipstown Highway Department	Using best management practices provide retention/detention of stormwater, re-contour slope, restore seasonal intermittent drainage steams, replace bridge at Sproutbrook Road See Action Worksheet	Not complete	Cost		1. Include in the 2020 HMP
						Level of Protection		
						Damages Avoided; Evidence of Success		
PHI-4 (LOI #161)	Barret Pond and Fishkill Road	Flood	Town of Philipstown, Code Enforcement Officer	Using best management practices provide retention/detention of stormwater, re-contour slope, re-pipe to county basin; or acquisition. See Action Worksheet	No progress	Cost		1. Include in the 2020 HMP
						Level of Protection		
						Damages Avoided; Evidence of Success		
PHI-5 (LOI #161)	Philips Brook Bridge	Flood, Severe Storm	Town of Philipstown, Code Enforcement Officer	Replace bridge. See Action Worksheet	Incomplete	Cost		1. Include in the 2020 HMP
						Level of Protection		
						Damages Avoided; Evidence of Success		
PHI-6 (LOI)	Avery Road and Snake Hill	Flood, Severe	HMGP; 25% for Local	Replace the Avery Road Bridge over Philips Brook Creek, repair stone wall banks of creek approximately 800	Unknown	Cost		1. Unknown
						Level of Protection		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection	
#167)	Road	Storm	Match	feet. remove silt, gravel and debris from retention ponds. See Action Worksheet		Damages Avoided; Evidence of Success		
PHI-7 (LOI #168)	Indian Brook and Bird/Bottle Inn	Flood, Severe Storm	Town of Philipstown, Code Enforcement Officer	Using best management practices replace the bridge on Old Albany Post Road and armor the banks of Indian Brook Creek from Old Albany Post Road upstream 400 feet. See Action Worksheet	No progress	Cost		
PHI-8 (LOI #170)	147 Hustis Road	Flood, Severe Storm	Town of Philipstown, Code Enforcement Officer	Cleaning and restoring the drainage channels for 800 feet. Removing any rock and soil obstacles. See Action Worksheet	No progress	Level of Protection		
PHI-9 (LOI #172)	1143 Old Albany Post Road	Flood, Severe Storm	Town of Philipstown, Code Enforcement Officer	Using best management practices provide stone and grassy swale and pipe to Philipes Brook Creek. See Action Worksheet	Complete	Damages Avoided; Evidence of Success		1. Discontinue – project has been completed
PHI-10 (LOI #173)	Old Albany Post Rd and Sprout Brook Rd	Flood, Severe Storm	Town of Philipstown, Code Enforcement Officer	Using best management practices, clean debris from creek and pond. Restore channel to Sprout Brook Creek. See Action Worksheet	Unknown	Cost		1. Unknown
PHI-11	Back-Up Generator for Radio Tower	Severe Storm, Severe Winter Storm, Earthquake	Town of Philipstown: Roger Chirico, Highway Department Supervisor	Install a permanent generator at Radio Tower at 59 Gate Lane Road. See Action Worksheet	Unknown	Level of Protection		1. Unknown
PHI-	Garrison VFD	Severe	Garrison	Garrison VFD proposes the	Unknown	Damages Avoided; Evidence of Success		1. Unknown
						Cost		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Level of Protection	Damages Avoided; Evidence of Success	
12 (LOI #2187)	Backup Power	Storm; Severe Winter Storm (Utility Outages)	Volunteer Fire Co., Inc., Peter von Bergen, Vice President	installation of Solar Resilience Systems to allow operations during extended electric grid outages for each of the two fire stations. See Action Worksheet		Level of Protection		
PHI-13	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain	Flooding, Severe Storm	Town NFIP FPA; support from NYS DHSES and FEMA	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners. Specifically identified are properties in the following areas: <ul style="list-style-type: none"> <li>Valley Lane, Garrison</li> <li>Sprout Brook Road, Garrison</li> <li>Brookside Road, Garrison</li> <li>Fishkill Road</li> </ul>	Ongoing capability	Cost		1. Unknown
PHI-14	Renew relationships and improve coordination with all utilities for the removal of dangerous trees. The cost to the town is \$150 per ton for disposal.	Severe Storm; Severe Winter Storm	Town Public Works; working with utilities	Renew relationships and improve coordination with all utilities for the removal of dangerous trees. The cost to the town is \$150 per ton for disposal.	Unknown	Cost		1. Unknown
PHI-15	Work with NYSDEC and FEMA to address NFIP Floodplain	Flood	Town NFIP FPA; NYSDEC, FEMA	Work with NYSDEC and FEMA to address NFIP Floodplain Mapping issues at Ashley Lane and Route 301	Unknown	Cost		1. Unknown



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Mapping issues at Ashley Lane and Route 301					Evidence of Success		
PHI-16	Assist the owner of the Town Recreation Center (former old school) to become a shelter	All hazards requiring sheltering	Town Supervisor, supporting facility Recreational Director; ARC	Assist the owner of the Town Recreation Center (former old school) to become a shelter that would address sheltering needs west of the Parkway. This currently serves as a comfort station, and has a 2008 Memorandum of Understanding (MOU) with American Red Cross (ARC). It has a generator and new boilers and can currently accommodate up to 200 people.	Unknown	Cost		1. Unknown
						Level of Protection		
						Damages Avoided; Evidence of Success		
PHI-17	Improve emergency management, response and recovery capabilities through the following activities:	All Hazards	Town Emergency Management Coordinator	Improve emergency management, response and recovery capabilities through the following activities: <ul style="list-style-type: none"> <li>Encourage all municipalities and relevant staff to get E900/901 training.</li> <li>Assist with the establishment of county wide CERT (Community Emergency Response Teams) teams; specifically with 2-3 CERT teams east and west of the Parkway.</li> </ul>	Unknown	Cost		1. Unknown
						Level of Protection		
						Damages Avoided; Evidence of Success		
PHI-18	Develop mitigation projects to address the following vulnerabilities:	Flood, Severe Storm, Climate Change	Town Engineer	Develop mitigation projects to address the following vulnerabilities: <ul style="list-style-type: none"> <li>5 Old Albany Post Road and Upland Drive: Seasonal Storm water erosion and damage to infrastructure.</li> <li>Highland Road: Beaver dam issue</li> <li>183 South Highland Road at Saunders Farm Road:</li> </ul>	Unknown	Cost		1. Unknown
						Level of Protection		
						Damages Avoided; Evidence of Success		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection	
PHI-19	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities	All Hazards	Putnam County, as supported by relevant local department leads,	Flooding issue Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none"> <li>• Re-Establish Local Emergency Planning Committees (LEPCs) within the County, with an emphasis on stronger municipal level participation. (PCBES-1).</li> <li>• Workshops and Seminars to build local capabilities in floodplain management and disaster recovery (PCBES-11), potentially to include:               <ul style="list-style-type: none"> <li>○ NFIP Community Rating System (CRS)</li> <li>○ Benefit-Cost Analysis (BCA)</li> <li>○ Substantial Damage Estimating (SDE)</li> <li>○ NFIP Elevation Certificates (EC)</li> <li>○ Certified Floodplain Manager (CFM) Training and Certification (note: current NFIP FPA is a CFM)</li> </ul> </li> </ul>	Unknown	Cost		1. Unknown
						Level of Protection		
						Damages Avoided; Evidence of Success		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				County-Wide Housing Location/Relocation Planning Initiative for Disaster Displaced Residents and Structures (PCBES)				

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### **Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy**

The Town of Philipstown did not identify mitigation projects/activities that have been completed but were not identified in the previous mitigation strategy in the 2015 plan.

### **Proposed Hazard Mitigation Initiatives for the Plan Update**

The Town of Philipstown participated in a mitigation action workshop in August 2020 and was provided the following publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: Putnam County Mitigation Catalogue and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

Table 9.8-16 summarizes the comprehensive-range of specific mitigation initiatives the Town of Philipstown would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may 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, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.8-17 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.





Table 9.8-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2020-Philipstown-001 (Former PHI-3)	Brookside and Valley Lane Mitigation	G-1, G-3, G-5	Flood	<p><b>Problem:</b> Brookside and Valley Lane are located at the base of a steep mountain next to Sprout Brook Creek. During a rain event stormwater floods streets and homes. Existed since 1940's. Homes are flood damaged. Repetitive loss through NFIP.</p> <p><b>Solution:</b> Using best management practices provide retention/detention of stormwater, re-contour slope, restore seasonal intermittent drainage steams, replace bridge at Sproutbrook Road</p>	No	Yes	Long-term	Town of Philipstown Highway Department	\$500,000	High – Reduced flooding of structures (Repetitive Loss) and infrastructure.	HMGP; Town Budget (25%) for Local Match	High	SIP	SP
2020-Philipstown-002 (Former PHI-4)	Barret Pond and Fishkill Road	G-1, G-3, G-5	Flood	<p><b>Problem:</b> Barret Pond discharges under a home. During a rain event the stormwater floods four homes creating repetitive losses. Existed since developed 1905's.</p> <p><b>Solution:</b> Using best management practices provide retention/detention of stormwater, re-contour slope, re-pipe to county basin; or acquisition.</p>	No	Yes	Short, once funding is secured	Town of Philipstown, Code Enforcement Officer	\$100K (\$500K for acquisition)	Reduced repetitive flood damage to four residential structures.	HMGP; 25% for Local Match	High	SIP	SP
2020-Philipstown-003 (Former PHI-5)	Philips Brook Bridge	G-1, G-5	Flood, Severe Storm	<p><b>Problem:</b> During a heavy rain event the Philips Brook Creek bypasses the bridge on Philipbrook Road causing severe erosion to the road.</p> <p><b>Solution:</b> Replace bridge</p>	No	Yes	Long term, depending on funding availability	Town of Philipstown, Code Enforcement Officer	\$300,000	High – Reduced flood damage to infrastructure; possible life safety risk	HMGP; 25% for Local Match	High	SIP	SP
2020-Philipstown-004 (Former PHI-6)	Avery Road and Snake Hill Road	G-1, G-3, G-5	Flood, Severe Storm	<p><b>Problem:</b> During a heavy rain event Philips Brook creek damages the home at 7 Avery Road. The bridge over Philips Brook Road is narrow causing flood water to back up and over Avery Road causing damage to the home at 7 Avery Road and severe erosion along Snake Hill</p> <p><b>Solution:</b> Replace the Avery Road Bridge over Philipbrook Creek, repair stone wall banks of creek approximately 800 feet. remove silt, gravel and debris from retention ponds.</p>	No	Yes	Long term, dependent on funding availability	Town Highway Department Town of Philipstown, Code Enforcement Officer Possible support from SWCD or NRCS	\$500,000	High – Reduced damages to road, bridge and residential structure; possible life safety risk.	HMGP; 25% for Local Match	High	SIP	SP



Table 9.8-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2020-Philipstown-005 (Former PHI-7)	Indian Brook and Bird/Bottle Inn	G-1, G-3, G-5	Flood, Severe Storm	<p><b>Problem:</b> During a heavy rain events Indian brook creek floods over its banks eroding Indian Brook Road, flooding over the bridge on Old Albany Post Road and damaging the Bird and Bottle Inn. Has existed since the 1700's.</p> <p><b>Solution:</b> Using best management practices replace the bridge on Old Albany Post Road and amour the banks of Indian Brook Creek from Old Albany Post Road upstream 400 feet.</p>	No	Yes	Long term, dependent on funding availability	Town of Philipstown, Code Enforcement Officer	\$400,000	High – Reduced damages to road, bridge and commercial structure; stream bank erosion; possible life safety risk	HMGP; 25% for Local Match	High	SIP	SP
2020-Philipstown-006 (Former PHI-8)	147 Hustis Road	G-1, G-3, G-5	Flood, Severe Storm	<p><b>Problem:</b> During a heavy rain event stormwater backups behind 147 Hustis Road redirecting the stormwater away from the existing storm sewer. This has existed for several years and is caused by storm debris from the forest and a berm.</p> <p><b>Solution:</b> Cleaning and restoring the drainage channels for 800 feet. Removing any rock and soil obstacles.</p>	No	Yes	Long term, dependent on funding availability	Town of Philipstown, Code Enforcement Officer	\$20,000	Reduced flood risk of residential structure	HMGP; 25% for Local Match	High	NRP	NR
2020-Philipstown-007 (Former PHI-9)	1143 Old Albany Post Road	G-1, G-3, G-5	Flood, Severe Storm	<p><b>Problem:</b> During a heavy rain event, stormwater emanates from the steep mountain slope to alongside Old Albany Post Road crosses the road and inundates 1143 Old Albany Post Road. Existed since the road was constructed 1700's.</p> <p><b>Solution:</b> Using best management practices provide stone and grassy swale and pipe to Philipes Brook Creek</p>	No	Yes	Long term, dependent on funding availability	Town of Philipstown, Code Enforcement Officer	\$20,000	Reduced flooding of residential structure; reduced road damage.	HMGP; 25% for Local Match	High	SIP, NRP	NR
2020-Philipstown-008 (Former PHI-13)	Promote and support non-structural flood hazard mitigation alternatives for at risk	G-1, G-5	Flooding, Severe Storm	<p><b>Problem:</b> There are limited resources available to develop structural flood control solutions in the Town. Less intensive flood mitigation measures can lessen damage through nonstructural projects.</p>	No	No	5 years	Town NFIP FPA; support from NYS DHSES and FEMA	Low	Mitigation of future flood damage	Owner funds; FMA	Medium	LPR	PR



Table 9.8-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
	properties within the floodplain			<p><b>Solution:</b> Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners. Specifically identified are properties in the following areas:</p> <ul style="list-style-type: none"> <li>• Valley Lane, Garrison</li> <li>• Sprout Brook Road, Garrison</li> <li>• Brookside Road, Garrison</li> <li>• Fishkill Road</li> </ul>										
2020-Philipstown-009 (Former PHI-15)	Work with NYSDEC and FEMA to address NFIP Floodplain Mapping issues at Ashley Lane and Route 301	G-1, G-2	Flood	<p><b>Problem:</b> The vicinity of Ashely Lane and Route 301 may be incorrectly mapped on the effective Flood Insurance Rate Map, leading to a potential misrepresentation of flood risk.</p> <p><b>Solution:</b> Work with NYSDEC and FEMA to address NFIP Floodplain Mapping issues at Ashley Lane and Route 301</p>	No	No	3 years	Town NFIP FPA; NYSDEC, FEMA	Low	Better understanding of flood risk	Town funds; owner funds	Medium	EAP	PR
2020-Philipstown-010 (Former PHI-17)	Improve emergency management, response and recovery capabilities through the following activities:	G-2, G-4	All Hazards	<p><b>Problem:</b> Emergency management in the Town can be improved through citizen training and staff training initiatives.</p> <p><b>Solution:</b> Improve emergency management, response and recovery capabilities through the following activities:</p> <ul style="list-style-type: none"> <li>• Encourage all municipalities and relevant staff to get E900/901 training.</li> <li>• Assist with the</li> </ul>	No	No	3 years	Town Emergency Management Coordinator	Low	Enhanced citizen preparedness	Town funds; FEMA	Medium	EAP	PI



Table 9.8-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				establishment of county wide CERT (Community Emergency Response Teams) teams; specifically with 2-3 CERT teams east and west of the Parkway.										
2020-Philipstown-011  (Former PHI-19)	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities	G-2, G-4	All Hazards	<p><b>Problem:</b> Enhancements and capacity building are needed to advance professional development and local officials' education about flooding and other hazards. Municipal officials reported being unaware of repetitive loss properties in their jurisdictions and their locations. This hinders the provision of technical services, mitigation, and emergency services to property owners and residents.</p> <p><b>Solution:</b> Request and acquire NFIP policy data from FEMA, including repetitive loss information, to distribute to municipalities to support floodplain administration. Facilitate Workshops and Seminars to build local capabilities in floodplain management and disaster recovery, anticipated to include based on municipal and county interest:</p> <ul style="list-style-type: none"> <li>• NFIP Community Rating System (CRS)</li> <li>• Benefit-Cost Analysis (BCA)</li> <li>• Substantial Damage Estimating (SDE)</li> <li>• NFIP Elevation Certificates (EC)</li> </ul> <p>Certified Floodplain Manager (CFM) Training and Certification</p>	No	No	3 Years	Putnam County, as supported by relevant local department leads,	Low- cost of class materials	Enhanced technical assistance and expertise of County and local government employees	HMGP; BRIC; DHSES	High	EAP	PI

Notes:

Not all acronyms and abbreviations defined below are included in the table.



Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
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:

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

Critical Facility:

Yes Critical Facility located in 1% floodplain

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 also 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. Such 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 also preserve or restore the functions of natural systems. These 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. Such 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 9.8-16. Summary of Prioritization of Actions

Project Number	Project 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-Philipstown-001 (Former PHI-3)	Brookside and Valley Lane Mitigation																
2020-Philipstown-002 (Former PHI-4)	Barret Pond and Fishkill Road																
2020-Philipstown-003 (Former PHI-5)	Philips Brook Bridge																
2020-Philipstown-004 (Former PHI-6)	Avery Road and Snake Hill Road																
2020-Philipstown-005 (Former PHI-7)	Indian Brook and Bird/Bottle Inn																
2020-Philipstown-006 (Former PHI-8)	147 Hustis Road																
2020-Philipstown-007 (Former PHI-9)	1143 Old Albany Post Road																
2020-Philipstown-008 (Former PHI-13)	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the																



Table 9.8-16. Summary of Prioritization of Actions

Project Number	Project 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-Philipstown-009 (Former PHI-15)	floodplain Work with NYSDEC and FEMA to address NFIP Floodplain Mapping issues at Ashley Lane and Route 301																
2020-Philipstown-010 (Former PHI-17)	Improve emergency management, response and recovery capabilities through the following activities:																
2020-Philipstown-011 (Former PHI-19)	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities																

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).





### 9.8.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

**Table 9.8-17. Analysis of Mitigation Actions by Hazard and Category**

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Earthquake										
Extreme Temperature										
Flood										
Harmful Algal Bloom										
Severe Weather										
Severe Winter Weather										
Terrorism										
Wildfire										

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

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

The Town of Philipstown followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from Tara Percacciolo (Town Clerk), Greg Wunner (Building Official), Richard Shea (Supervisor), and Carl Frisenda. The officials represented the community on the Putnam County Hazard Mitigation Plan Planning Partnership, and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. 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.

Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meetings).

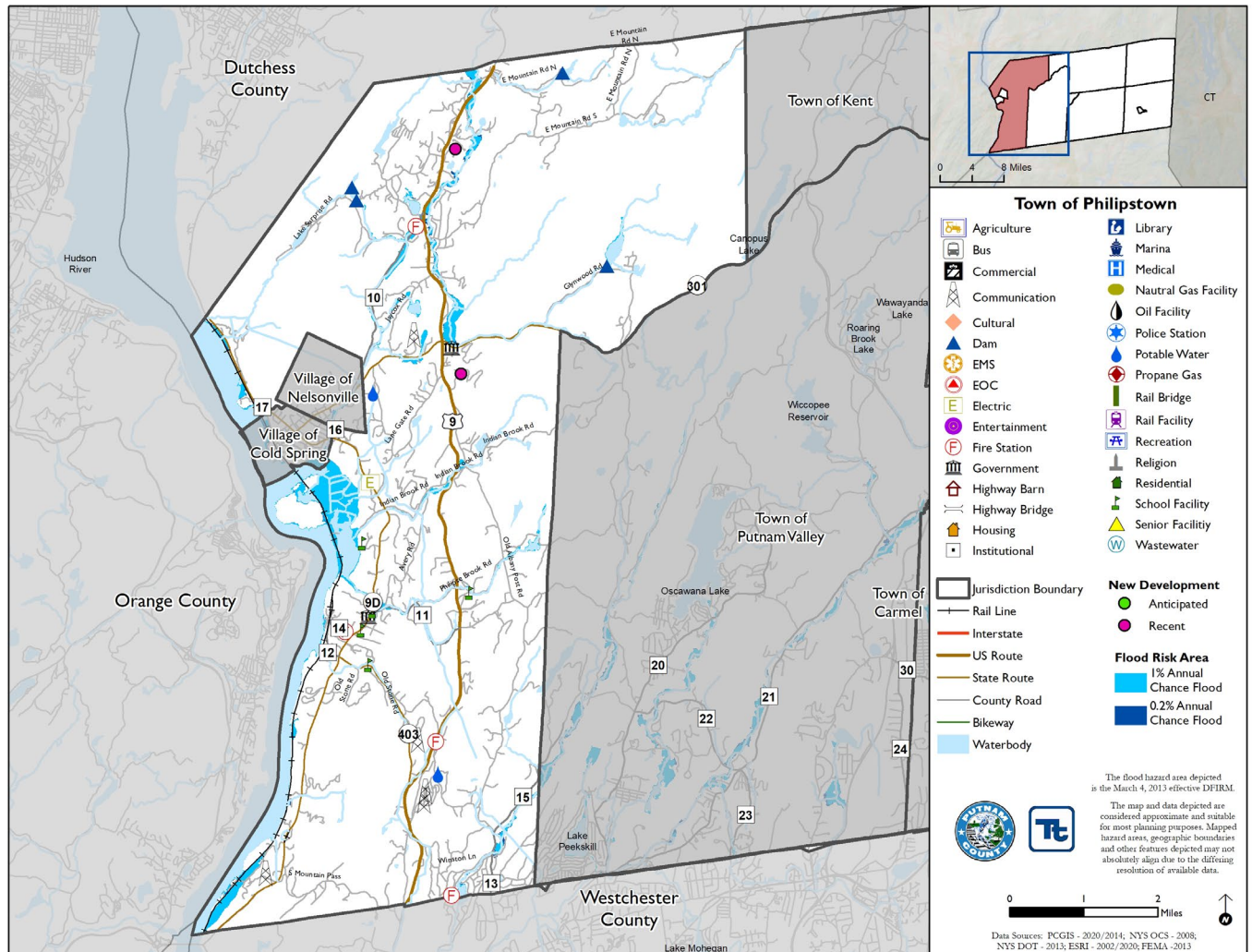
### 9.8.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Philipstown that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Philipstown has significant exposure. The map is illustrated below.





Figure 9.8-1. Town of Philipstown Hazard Area Extent and Location Map





Action Worksheet			
<b>Project Name:</b>	Brookside and Valley Lane Mitigation		
<b>Project Number:</b>	2020-Philipstown-001 (Former PHI-3)		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood		
<b>Description of the Problem:</b>	Brookside and Valley Lane are located at the base of a steep mountain next to Sprout Brook Creek. During a rain event stormwater floods streets and homes. Existed since 1940's. Homes are flood damaged. Repetitive loss through NFIP.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	Using best management practices provide retention/detention of stormwater, re-contour slope, restore seasonal intermittent drainage steams, replace bridge at Sproutbrook Road		
<b>Is this project related to a Critical Facility?</b>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<b>Is the critical facility located in the 1% annual chance flood area?</b>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
<b>Level of Protection:</b>	500-year	<b>Estimated Benefits (losses avoided):</b>	High - Reduced flooding of structures (Repetitive Loss) and infrastructure
<b>Useful Life:</b>	30 years	<b>Goals Met:</b>	1, 3, 5
<b>Estimated Cost:</b>	\$500,000	<b>Mitigation Action Type:</b>	SIP
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	5 Years
<b>Estimated Time Required for Project Implementation:</b>	2 years	<b>Potential Funding Sources:</b>	HMGP; Town Budget (25%) for Local Match
<b>Responsible Organization:</b>	Town Highway Department	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	To be completed via RFP process. Comprehensive Emergency Management Plan; Capital Plan; NFIP Ordinance
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	Using best management practices provide retention/detention of storm water. re-contour slope, restore intermittent stream	N/A	Feasible
	No action – does not resolve the vulnerability	N/A	Not acceptable
	Replace bridge at Sprout Brook Road.	N/A	Not feasible
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>	Brookside and Valley Lane Mitigation	
<b>Project Number:</b>	2020-Philipstown-001 (Former PHI-3)	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	0	
<b>Property Protection</b>	1	Protect Homes. Repetitive losses.
<b>Cost-Effectiveness</b>	1	Cost of project should protect against repetitive damage repairs
<b>Technical</b>	1	Technically feasible and a long term solution
<b>Political</b>	1	40 Year old issue to be cared for.
<b>Legal</b>	1	N/A
<b>Fiscal</b>	0	N/A
<b>Environmental</b>	0	N/A
<b>Social</b>	0	N/A
<b>Administrative</b>	1	Yes, Department can administratively complete project.
<b>Multi-Hazard</b>	1	Yes, protects roadway losses and home losses
<b>Timeline</b>	1	Yes, can be completed within 1 year
<b>Agency Champion</b>	1	Town Highway Department
<b>Other Community Objectives</b>	0	N/A
<b>Total</b>	9	
<b>Priority (High/Med/Low)</b>	High	



Action Worksheet			
<b>Project Name:</b>	Indian Brook and Bird/Bottle Inn		
<b>Project Number:</b>	2020-Philipstown-005 (Former PHI-7)		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood; Severe Storms		
<b>Description of the Problem:</b>	During a heavy rain events Indian brook creek floods over its banks eroding Indian Brook Road, flooding over the bridge on Old Albany Post Road and damaging the Bird and Bottle Inn. Has existed since the 1700's.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	Using best management practices replace the bridge on Old Albany Post Road and armor the banks of Indian Brook Creek from Old Albany Post Road upstream 400 feet.		
<b>Is this project related to a Critical Facility?</b>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<b>Is the critical facility located in the 1% annual chance flood area?</b>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
<b>Level of Protection:</b>	500 years	<b>Estimated Benefits (losses avoided):</b>	High - Reduced damages to road, bridge and commercial structure; stream bank erosion; possible life safety risk
<b>Useful Life:</b>	30 years	<b>Goals Met:</b>	1, 3, 5
<b>Estimated Cost:</b>	\$400,000	<b>Mitigation Action Type:</b>	SIP
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	5 years
<b>Estimated Time Required for Project Implementation:</b>	1 year	<b>Potential Funding Sources:</b>	HMGP; 25% for Local Match
<b>Responsible Organization:</b>	Town of Philipstown	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Comprehensive Emergency Management Plan; Capital Plan
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No action; Repetitive Loss	N/A	Not feasible
	Replace bridge, re-contour floodplain	N/A	<b>Feasible</b>
	Stabilize floodplain	N/A	
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>	Indian Brook and Bird/Bottle Inn	
<b>Project Number:</b>	2020-Philipstown-005 (Former PHI-7)	
<b>Criteria</b>	<b>Numeric Rank (-1, 0, 1)</b>	<b>Provide brief rationale for numeric rank when appropriate</b>
<b>Life Safety</b>	1	Prevention of Road Flooding will help maintain safety.
<b>Property Protection</b>	1	This Project is expected to protect road way from future washout.
<b>Cost-Effectiveness</b>	1	Long term effects are expected to be highly cost-effective.
<b>Technical</b>	1	Design work is prepared. LOI approved
<b>Political</b>	0	No effect is expected from a Political aspect.
<b>Legal</b>	1	This Project will protect the Municipalities from Legal action.
<b>Fiscal</b>	0	Pending Grant assistance
<b>Environmental</b>	1	The road way improvement will help with water flow between wetlands.
<b>Social</b>	1	Nearby home-owners will be protected by having egress in case of emergency and access to vital services.
<b>Administrative</b>	1	The Town of Philipstown has all necessary Administrative abilities.
<b>Multi-Hazard</b>	1	This will protect croplands from salt damage and homes and roads from flood damage.
<b>Timeline</b>	0	Pending
<b>Agency Champion</b>	1	Town Highway Department is the responsible party.
<b>Other Community Objectives</b>	0	
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	