



9.6 Village of Nelsonville

This section presents the jurisdictional annex for the Village of Nelsonville. 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 Village participated in the planning process; an assessment of the Village of Nelsonville’s risk and vulnerability; the different capabilities utilized in the Village; and an action plan that will be implemented to achieve a more resilient community.

9.6.1 Hazard Mitigation Planning Team

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

Table 9.6-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Mayor Michael Bowman 258 Main Street, Nelsonville, NY 10516 845-265-2500 mayor@nelsonvilleny.gov	Mindy Jesek 258 Main Street, Nelsonville, NY 10516 845-265-2500 villageclerk@nelsonvilleny.gov
NFIP Floodplain Administrator	
William Bujarski 258 Main Street, Nelsonville, NY 10516 845-475-6210 buildingdepartment@nelsonvilleny.gov	

9.6.2 Municipal Profile

The Village of Nelsonville derives its name from Elisha Nelson and was incorporated in 1855. The Village of Nelsonville is located within the Hudson Highlands of New York State. It is found within the Town of Philipstown and is directly east of the Village of Cold Spring. The Village has a total area of one square mile, all of which is land.

The Trustees, together with the Mayor, compromise the Nelsonville Village Board which acts as the Village's legislative body and meets the first Monday of every month.

According to the 2010 U.S. Census, the population of the Village of Nelsonville was 628.

9.6.3 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 9.6-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.6-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.



Table 9.6-2. 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	0	0	1	0	0	0	1	0	0	0
Multi-Family	0	0	0	0	1	0	0	0	0	0
Other (commercial, mixed-use, etc.)	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	1	0	1	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
New Cell Tower					15 Rock Ledge Road		Wildfire Intermix			

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.6.4 Capability Assessment

The Village of Nelsonville 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 9.6.4). The Village of Nelsonville 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 Village of Nelsonville and where hazard mitigation has been integrated.



Table 9.6-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? If no - can it be a mitigation action? If yes, add Mitigation Action #.	
Codes, Ordinances, & Requirements							
Building Code	Yes	2020	Local and State	Building Inspector	Yes	No	-
<p>Comment: 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.</p>							
Zoning Code	Yes	Chapter 188	Local	Planning Board	No	Yes	NA
<p>Comment:</p> <ul style="list-style-type: none"> Chapter 188, Zoning, adopted by the Board of Trustees on 02-31-84 and subsequently amended. This chapter is enacted in accordance with a Comprehensive Plan for the Village of Nelsonville for the following purposes: To promote the health, safety, morals and general welfare; To Lessen congestion in the streets; to secure safety from fire, panic, floods and other dangers; to provide adequate light and air; to prevent overcrowding of the land; to avoid undue concentration of population; and to promote the orderly growth, development and preservation of the Village of Nelsonville with due consideration for economic well-being, adequate housing opportunity, the character and appearance of the village, Site Plans must depict areas subject to flooding having a one-percent chance of occurring in any given year in the vicinity of Foundry Brook, the floodplain, floodway, base flood elevations and lowest floor elevations, including basements, above mean sea level for any existing or proposed building. No hazardous or toxic substances and materials which are dangerous due to radioactivity, explosion or extreme fire hazard shall be used or stored on any lot except in amounts and in a manner allowed by federal, state and local regulations. Construction shall be designed so as to require no disturbance of land with slopes in excess of 25% except as may be approved by the Planning Board, in its discretion, in appendage steeply sloped areas where adverse environmental impact will be minimal. 							
Subdivision Regulations	Yes	-	Local	Planning Board	No	No	N/A
<p>Comment: 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).</p>							
Stormwater Management Regulations	No	-	Local		Yes	-	-
<p>Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System (SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department.</p>							
Post-Disaster Recovery	No	-	Local	-	No	-	-
<p>Comment</p>							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	No	No
<p>Comment: 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.</p>							
Growth Management	No	-	Local	-	No	-	-
<p>Comment: In New York State, virtually all land use regulation, which is the primarily 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.</p>							



SECTION 9.6: VILLAGE OF NELSONVILLE

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated?	
						If no - can it be a mitigation action? If yes, add Mitigation Action #.	
Site Plan Review	Yes	-	Local	Planning Board	No	No	-
Comment: The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	No	-	State		Yes	-	-
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	-	Federal, State, Local	Building Inspector	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	NA
<p>Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019.</p> <ul style="list-style-type: none"> Local Law No. 2 of the year 2012, Flood Damage Prevention. The Village Board of the Village of Nelsonville finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Village of Nelsonville 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 It is the purpose of this local law to: <ol style="list-style-type: none"> regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; control filling, grading, dredging and other development which may increase erosion or flood damages; regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; qualify and maintain for participation in the National Flood Insurance Program. The Building Inspector is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard (including proposals for manufactured home and recreational vehicle parks and subdivisions): <ol style="list-style-type: none"> Proposals shall be consistent with the need to minimize flood damage; Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, Adequate drainage shall be provided to reduce exposure to flood damage. The following standard 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. The following standards apply to new and substantially improved commercial, industrial and other non-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 of any non-residential structure shall either: <ol style="list-style-type: none"> have the lowest floor, including basement or cellar, elevated to or above two feet above the base flood elevation; or 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. 							
Municipal Separate Storm Sewer System (MS4) Regulation	No	-	Federal	-	Yes	-	-
Comment: 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	No	-	Local	-	Yes	-	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change	Yes	-	Local	-	Yes	-	-
Comment: 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 Village is attempting to join the CCA (Community Choice Aggregation).							





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						If no - can it be a mitigation action? If yes, add Mitigation Action #.	
Disaster Recovery Ordinance	No	-	Local	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	Local	-	No	-	-
Comment:							
Other	-	-	-	-	-	-	-
Comment:							
Planning Documents							
Comprehensive Plan	Yes	1991	Local, County	Planning Board	No	No	No
<p>Comment:</p> <ul style="list-style-type: none"> Comprehensive Master Plan, as updated in 1991. Within the context of environmental awareness, the Nelsonville Planning Board and Village Board proposed in 1990 to amend the Village's zoning regulations to account for limitations imposed by wetlands and steeply sloped lands. The Comprehensive Master Plan pertains to the entire 669-acre area of the Village of Nelsonville and is to serve as a guide for growth, preservation and development activities that may occur in the future with the year 2010 in view. the Comprehensive Master Plan will: 1. Guide zoning decisions, project reviews and other activities for which the Village Board of Trustees Board of Trustees and the Planning Board have responsibility, 2. Alert other government agencies to the policies and aspirations of the Village of Nelsonville when they prepare projects or conduct activities that may have a bearing on the Village, 3. Serve as a guide for development and preservation projects and programs of private individuals, groups and organizations that may wish to enhance the Village, its residents and its services and, 4. Establish a framework or model by which the Village and the community can evaluate the effects of a particular project or proposal and can modify policy for the future as appropriate. Wetlands, swamps and streams have an inherent environmental value that designation on the Plan Map is intended to highlight. Part of the designated areas are also flood hazard zones. These land areas would pose significant constraints for any land use that would require alteration of the terrain. Any such proposed alteration must be considered within the context of the Village's "Freshwater and Wetlands Protection Law". To prepare for implementation of the Plan, two important steps are recommended for immediate consideration: 1. Update and revise the Zoning Law to support the Master Plan; and 2. Encourage citizen participation. 							
Capital Improvement Plan	No	No formal plan/budget	Local		No	-	-
Comment: 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	-	-
Comment: 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	-	-	-	-	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	No	-	Local	-	No	-	-
Comment: 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	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: 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							



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<i>of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program</i>							
Economic Development Plan	No	-	Local	-	No	-	-
<i>Comment: 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.</i>							
Shoreline Management Plan	No	-	Local	-	Yes	-	-
<i>Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas; 6 NYCRR Part 505, Coastal Erosion Management Regulations</i>							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
<i>Comment: 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.</i>							
Forest Management Plan	No	-	Local	-	No	-	-
<i>Comment:</i>							
Transportation Plan	No	-	Local	-	No	-	-
<i>Comment:</i>							
Agriculture Plan	No	-	Local	-	Yes	-	-
<i>Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.</i>							
Other	-	-	-	-	-	-	-
<i>Comment:</i>							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	No	-	Local	-	Yes	-	-
<i>Comment: 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).</i>							
Strategic Recovery Planning Report	No	-	Local	-	-	-	-
<i>Comment:</i>							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
<i>Comment: 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.</i>							
Post-Disaster Recovery Plan	No	-	Local	-	No	-	-
<i>Comment:</i>							
Continuity of Operations Plan	No	-	Local	-	No	-	-
<i>Comment: 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.</i>							
Public Health Plan	No	-	Local	-	?	-	-
<i>Comment:</i>							
Other	-	-	-	-	-	-	-



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						If no - can it be a mitigation action? If yes, add Mitigation Action #.
Comment:						

Table 9.6-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes - Code Enforcement, Building Inspector, Zoning Inspector, Fire Inspector
Permits are tracked by hazard area. For example, floodplain development permits.	No
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Nelsonville.

Table 9.6-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Yes- Village Planning Board
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	County economic development agency
Warning Systems / Services (reverse 911, outdoor warning signals)	No	-
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	Putnam County Sheriff's Office; Cold Spring Fire Department; Philipstown Ambulance Corps
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Contracted for specific projects
Engineers or professionals trained in building or infrastructure construction practices	Yes	Contracted for specific projects
Planners or engineers with an understanding of natural hazards	Yes	Contracted for specific projects
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Scientist familiar with natural hazards	No	-
NFIP Floodplain Administrator (FPA)	Yes	Building Inspector
Surveyor(s)	Yes	Contracted for specific projects
Emergency Manager	Yes	
Grant writer(s)	No	-
Resilience Officer	No	-
Other	No	-



Fiscal Capability

The table below summarizes financial resources available to the Village of Nelsonville.

Table 9.6-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Available
Capital improvements project funding	Yes, but no current formal capital improvements plan/budget
Authority to levy taxes for specific purposes	Available
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	Available
Incur debt through special tax bonds	Available
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Available
Open Space Acquisition funding programs	Yes- nonprofit Open Space Institute
Other	No

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Nelsonville.

Table 9.6-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes – Village Clerk
Personnel skilled or trained in website development?	Yes – Village Clerk (Facebook); Trustee (Website)
Hazard mitigation information available on your website; if yes, describe	Yes – announcements and HMP planning information has been posted
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes- Facebook, Village website
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	No
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	Village Board handles communications themselves

Community Classifications

The table below summarizes classifications for community programs available to the Village of Nelsonville.



Table 9.6-8. 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	No	-	-
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 9.6-9. Adaptive Capacity of Climate Change

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

- *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)

William Bujarski, Building Inspector



National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Nelsonville.

Table 9.6-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties
Village of Nelsonville	3	3	\$32,205	0

Source: FEMA 2020

Notes: Policies, claims, and 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

The Building Inspector serves as the designated floodplain manager for the Village. There are no certified floodplain managers employed by the Village, and the Village has indicated that it does not have access to resources to determine future flooding conditions due to climate change. Limited information was available about existing NFIP services, though it was noted that cooperation from the surrounding Town was a barrier to running an effective NFIP program.

Compliance History

The Village of Nelsonville is currently an active member of the NFIP, in good compliance. The Village’s NFIP regulatory and enforcement programs meet at least the minimum Federal and State requirements. The Village’s most recent CAV visit was conducted on February 26, 2020.

The Village has site plan review, permitting and inspection process that insures that new development and substantial improvements are conducted in compliance with all regulations and ordinances, including consideration of natural hazard risk areas.

In recent history, the Village has worked along with the Town of Philipstown Building Department and NFIP FPA to assist with meeting local building code and NFIP requirements. Due to their limited policy base and municipal resources, the Village does not believe that participation in the NFIP’s Community Rating System (CRS) program would be cost-effective or practical at this time.

Regulatory

Chapter 95 of the Village Code pertains to flood damage prevention. The Code was last amended in February 2020 and is not known to exceed minimum NFIP requirements.

Additional Areas of Existing Integration

- **Code Enforcement / Floodplain Management:** In recent history, the Village has worked along with the Town of Philipstown Building Department and NFIP FPA to assist with meeting local building code and NFIP requirements. The Village is currently in negotiations with the Town to consolidate the Building Departments. The Village will be updating their NFIP ordinance in accordance with the results of this pending consolidation
- **Building Local Mitigation Capabilities:** The Village has included an initiative to support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities, within the proposed mitigation strategy.



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

Evacuation routes in the Village are related to the Indian Point Energy Center. The routes include a westerly route along Route 301 to Carmel and central Putnam County. Additionally, there are routes north along Route 9D to Dutchess County.

Sheltering

There are no formal sheltering locations within the Village of Nelsonville. Facilities that can be used informally as shelters in a limited capacity include the Cold Spring Baptist Church and Masonic Lodge located on Secor Street. The nearest shelter is the Philipstown Community Center/Rec Center Building in Garrison. Spaces along Gate House Road for temporary housing

Temporary Housing

Tents and trailers that would be used in a post-disaster event can be erected in the Village’s open spaces. In 2020, a five-acre Village-owned parcel is planned to be placed under a conservation easement by the Open Space Institute. The forthcoming easement agreement includes clauses with allowances for community facilities such as shelters or water wells in the community benefits agreement.

Permanent Housing

There are few permanent housing sites remaining in the Village except for scattered infill sites. The lack of sewer service and septic density standards limit new development.

9.6.5 Hazard Event History Specific to the Village of Nelsonville

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 Village of Nelsonville 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 9.6-11 provides details regarding municipal-specific loss and damages the Village 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 9.6-11. 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.	--
August 3, 2018	Thunderstorm Wind	No	A microburst storm impacted Glynwood in Philipstown, resulting in 22 downed trees and some property damage.	--



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
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 in Nelsonville.
March 2020- Present	Disease Outbreak (COVID-19 Pandemic)	Yes	A novel coronavirus began significant spread in the New York region in March 2020. Putnam County, with its proximity to the epicenter in New York City, saw considerable infections.	COVID-19 cases in Philipstown rose to 137 through October 23 rd , 2020. Philipstown’s infection numbers include those of both Cold Spring and Nelsonville. Philipstown’s cases represent 7% of the County’s overall number of cases.

Notes:

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

9.6.6 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 Village of Nelsonville’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 Village of Nelsonville does not have critical facilities located in either the 100-year or 500-year floodplain.

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 Village of Nelsonville. The Village of Nelsonville 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 Village of Nelsonville retained its initial risk rankings.

Table 9.6-12. Hazard Ranking Input

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

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:

- Nelsonville is subject to frequent power outages during storm events that last between a few hours and a week. Many utilities are located above ground, and falling trees present a hazard. Electric service in the Village passes through both Garrison in Philipstown and Beacon in Dutchess County.
- The Village has fire protection issues due to its water system. There is a lack of pressure in the Village, which is served by Cold Spring’s water system. Many distribution lines are corroded, though mains have been re-lined. During a past fire, ten fire companies were running tankers between river and back. (Action 001)
- The elevation of the Village is above the Hudson River, and the contouring of the land creates what can be described as a bowl. The runoff from the surrounding hills collects in a large area of the Village and has caused flooding and sewerage issues in the past. Impacted properties are generally private and somewhat geographically sporadic (e.g. the primary causes of flooding are often localized or property-specific). Most flooding on private property is limited to basements and yards, which may be serviced by septic systems.
- Stormwater system upgrades along Main Street were generally limited to upgrading the stormwater culvert pipe directly under Main, but other sections are not upgraded. The Ambulance Corps building is along the Back Brook, and could be subject to localized flooding if the stormwater system isn’t maintained in the area. The culvert pipe on Main Street is where they have constant water flows off the mountain for 6-9 months of the year.
- Residential and commercial properties along Foundry Brook are vulnerable to flooding.
- The bridge at Peekskill Road and Bank Street is vulnerable to damage if heavy flood waters drive against the bridge.
- Icing issues arise due to runoff along Healy Road, however drainage improvements have been recently completed in this area.



- LPG tanks at private properties (residential and commercial) may be vulnerable to breaking loose during flood events. Particularly noted are properties along Foundry Brook. (*Action 003*)
- The following critical or essential facilities in the Village lack back-up power:
 - Village Office and Court House (258-260 Main Street)
 - Putnam County Sheriff Office (276 Main Street – formerly the Nelsonville Fire House). This is now County property. (*Action 004*)

9.6.7 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.

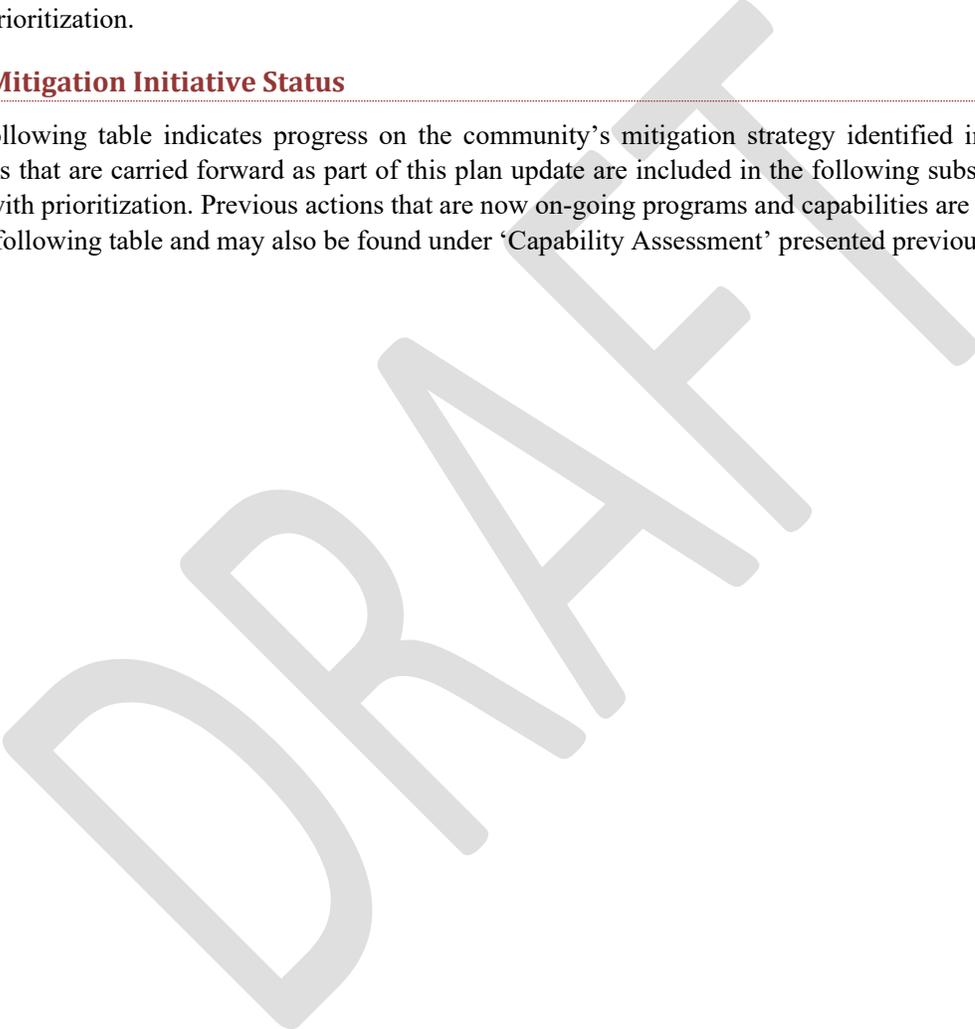




Table 9.6-13. Status of Previous Mitigation Actions

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	
NEL-1	Cedar Street / Back Brook	Flood, Severe Storm	Village Board, working with Village of Cold Spring	Cedar Street / Back Brook: Working along with the Village of Cold Spring, perform an engineering study to address the localized flooding problems due to stormwater/runoff in this area. Implement identified mitigation projects as funding is secured. Possible engineering solutions include: <ul style="list-style-type: none"> • Increase the capacity of the culvert pipe system crossing Main Street. • Make high basin to care for overflow. • Runoff issues - divert or enhance the water flow down Mountain Avenue. 	No progress	Cost		1. Discontinue- no longer a priority
						Level of Protection		
						Damages Avoided; Evidence of Success		
NEL-2	Foundry Brook	Flood, Severe Storm	Village Board (to secure funding and contract study)	Foundry Brook: Conduct engineering study to identify cost-effective and feasible solutions to address flood risk of residential and commercial properties along the Brook. Implement identified mitigation projects as funding is secured.	No progress	Cost		1. Remove
						Level of Protection		
						Damages Avoided; Evidence of Success		
NEL-3	Bridge at Peekskill Road and Bank Street	Flood, Severe Storm	Village Board advising County Public Works.	Bridge at Peekskill Road and Bank Street: Petition the County to assess the vulnerability of this County-owned bridge to heavy flood waters, and address vulnerability if determined	Complete	Cost	TBD	1. Remove
						Level of Protection	N/A	
						Damages Avoided; Evidence of Success	TBD	
NEL-4	Implement a program to complete	Flood, Severe Storm	Village Building Inspector	Implement a program to complete inspections of properties that have Liquefied	No progress	Cost		1. Continue
						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.
						Damages Avoided; Evidence of Success		
	inspections of properties that have Liquefied Natural Propane tanks			Natural Propane tanks, and work with property owners to secure vulnerable tanks to prevent them from becoming dislodged during flood events, creating a safety risk. These concerns are specifically noted with properties along the Foundry Brook.		Damages Avoided; Evidence of Success		
NEL-5	Work with facility owners/operators to install backup power at the following critical or essential facilities	Severe Storm; Severe Winter Storm	Village Hall – Village Board; Sheriff Facility – County project	Work with facility owners/operators to install backup power at the following critical or essential facilities, which may require securing grant funding: <ul style="list-style-type: none"> Village Office and Court House (258-260 Main Street) Putnam County Sheriff Office (276 Main Street – formerly the Nelsonville Fire House) – This is now County property 	In Progress	Cost	N/A	1. Continue
						Level of Protection	Stand-by electricity via Quick Connect generator to critical facility (Sherriff Substation).	
						Damages Avoided; Evidence of Success	Continued operation of substation during power outages.	
NEL-6	Complete engineering and secure funding to connect the Village residents to the existing sewer system	Flood; Severe Storm; Severe Winter Storm	Village Board	Complete engineering and secure funding to connect the Village residents to the existing sewer system that is currently serving the Village of Cold Spring. This system was designed to care for the future capacity of the village of Nelsonville. Onsite disposal systems are vulnerable to power outages, and flooding for properties in low-lying areas.	In progress	Cost		1. Continue
						Level of Protection		
						Damages Avoided; Evidence of Success		
NEL-7	Monitor the effectiveness of the recently completed system of catch basins	Severe Winter Storm, Flood,	Public Works	Monitor the effectiveness of the recently completed system of catch basins and pipe along Healy Road to address icing issues that arise due to runoff in	Completed	Cost	N/A	1. Remove
						Level of Protection	Decreased icing on Healy Road.	



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.
						Damages Avoided; Evidence of Success	No issues noted from prior mitigation effort.	
	and pipe along Healy Road	Severe Storm		this location. There is an additional 800' of area that could be addressed, but may not be needed if the current effort is effective.		Damages Avoided; Evidence of Success	No issues noted from prior mitigation effort.	
NEL-8	Developing and implement a public outreach/education program targeting floodplain and flood-prone residents	Flood, Severe Storm	Building Inspector; as supported by Village Board	Developing and implement a public outreach/education program targeting floodplain and flood-prone residents. This program will provide available Federal (FEMA) and state information on the NFIP, programs available to flood vulnerable property owners to mitigate their properties, and information on how property owners can mitigate their properties (with or without outside funding).	No progress	Cost		1. Remove- no longer a priority
						Level of Protection		
						Damages Avoided; Evidence of Success		
NEL-9	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,	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities, specifically: <ul style="list-style-type: none"> • Re-Establish Local Emergency Planning Committees (LEPCs) within the County, with an emphasis on stronger municipal level participation. (PCBES-1). • Workshops and Seminars to build local capabilities in floodplain management and disaster recovery (PCBES-11), potentially to include: <ul style="list-style-type: none"> ○ NFIP Community Rating System (CRS) ○ Benefit-Cost Analysis (BCA) 	No progress	Cost		1. Continue
						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.
				<ul style="list-style-type: none"> ○ Substantial Damage Estimating (SDE) ○ NFIP Elevation Certificates (EC) ○ Certified Floodplain Manager (CFM) Training and Certification ○ County-Wide Housing Location/Relocation Planning Initiative for Disaster Displaced Residents and Structures 				

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Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Nelsonville has not identified mitigation projects/activities that have been completed but not identified in the previous mitigation strategy in the 2015 Plan.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Nelsonville 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 9.6-14 summarizes the comprehensive-range of specific mitigation initiatives the Village of Nelsonville 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 9.6-15 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.6-14. 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-Nelsonville-001	Nelsonville Water Supply Backup	G-1 G-4 G-5	Severe Storm; Severe Winter Storm	<p>Problem: The Village has identified vulnerabilities owing to water and electric outages during storm events. The lack of water pressure owing to its existing connection to Cold Spring has also been a concern.</p> <p>Solution: Connect Nelsonville to the NYCDEP aqueduct to ensure a backup water supply during emergencies.</p>	Yes	No	Within five years	NYCDEP; Village of Nelsonville	Medium	Backup water supply source during outages	NYCDEP; Village contribution	High	SIP	PR
2020-Nelsonville-002	Village of Nelsonville Comprehensive Plan Update	G-2 G-5	Severe Storms; Severe Winter Storms; Flooding;	<p>Problem: The Village Comprehensive Plan dates to 1991 and needs to be updated to reflect challenges presented to the Village within the past two decades, including the integration of hazard mitigation initiatives.</p> <p>Solution: The Village will undertake a new comprehensive plan that integrates the Hazard Mitigation Plan and enables the acceleration of mitigation projects.</p>	No	No	Within one year of funding	Village of Nelsonville	Low	Enhance citizen participation in planning processes; use new and updated information to guide development and redevelopment	Village funds; planning grants	High	LPR	PR
2020-Nelsonville-003 (Former NEL-4)	Implement a program to complete inspections of properties that have Liquefied Natural Propane tanks	G-1, G-3, G-4, G-5	Flood; Severe Storms	<p>Problem: Properties along Foundry Brook have above-ground fuel tanks that may become dislodged during a flooding event. These properties are found along Foundry Brook.</p> <p>Solution: Implement a program to complete inspections of properties that have Liquefied Natural Propane tanks, and work with</p>	No	Yes- flood fill And encroachment	Within three years	Village Building Inspector	Low- existing capability	Prevent flood damages and chemical spills during flood events	Village funds	Medium	LPR	PR



Table 9.6-14. 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-Nelsonville-004 (Former NEL-5)	Critical Facility Backup Power	G-1, G-4, G-5	Severe Storm; Severe Winter Storm	<p>property owners to secure vulnerable tanks.</p> <p>Problem: The following critical facilities in the Village lack back-up power</p> <ul style="list-style-type: none"> Village Office and Court House (258-260 Main Street) Putnam County Sheriff Office (276 Main Street – formerly the Nelsonville Fire House) – This is now County property <p>Solution: Install permanent back-up power at both facilities to support critical operations. It is noted that the Sherriff Office is County property, so this project would be led and implemented by the County with Village support as appropriate.</p>	Yes	Yes	Projects can be implemented in the short-term once funding is secured.	Village Hall – Village Board; Sheriff Facility – County project	Medium-High	Will allow the Village and County to continue to provide critical services to the community and region during power outages.	FEMA HMA grants or other grants as available; Town and County Budgets for Local Match	Medium	SIP	PR
2020-Nelsonville-005 (Former NEL-6)	Village Sewer Project	G-1 G-3 G-5	Flood; Severe Storm; Severe Winter Storm	<p>Problem: The Village lacks a sewer system connection and many of the existing septic systems in the Village are failing.</p> <p>Solution: Complete engineering and secure funding to connect the Village residents to the existing sewer system that is currently serving the Village of Cold Spring. This system was designed to care for the future capacity of the village</p>	Yes	Yes	Long term project	Village of Nelsonville	High costs for installation-need to defray for homeowners	More reliable and environmentally-friendly wastewater service that is more resistant to natural hazards	USDA Rural Development; Environmental Protection Agency; CDBG	High	SIP	PR





Table 9.6-14. 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
				of Nelsonville. Onsite disposal systems are vulnerable to power outages, and flooding for properties in low-lying areas.										
2020-Nelsonville-006 (Former NEL-9)	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities	G-1, G-2, G-4, G-5	All Hazards	<p>Problem: The Village is interested in enhancing its capacity to withstand hazards and desires to participate in local/region mitigation and risk-reduction capability trainings</p> <p>Solution: Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities, specifically:</p> <ul style="list-style-type: none"> • Re-Establish Local Emergency Planning Committees (LEPCs) within the County, with an emphasis on stronger municipal level participation. (PCBES-1). • Workshops and Seminars to build local capabilities in floodplain management and disaster recovery (PCBES-11), 	No	No	Within one year of funding	Putnam County, as supported by relevant local department leads,	Low-publications and training opportunities needed	High-enhanced understanding by Village officials	County: FEMA HMGP	Medium	EAP	PI



Table 9.6-14. 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
				potentially to include: <ul style="list-style-type: none"> ○ NFIP Community Rating System (CRS) ○ Benefit-Cost Analysis (BCA) ○ Substantial Damage Estimating (SDE) ○ NFIP Elevation Certificates (EC) ○ Certified Floodplain Manager (CFM) Training and Certification 										

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

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Table 9.6-15. 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-Nelsonville-001	Nelsonville Water Supply Backup	1	1	1	1	1	1	0	0	1	0	1	1	0	1	10	High
2020-Nelsonville-002	Village of Nelsonville Comprehensive Plan Update	0	0	0	1	1	1	0	1	1	1	0	0	1	1	8	Medium
2020-Nelsonville-003 (Former NEL-4)	Implement a program to complete inspections of properties that have Liquefied Natural Propane tanks	1	1	0	1	0	0	1	0	0	0	0	1	1	1	7	Medium
2020-Nelsonville-004 (Former NEL-5)	Critical Facility Backup Power	1	1	0	1	0	0	0	0	1	1	1	0	1	0	7	Medium
2020-Nelsonville-005 (Former NEL-6)	Village Sewer Project	1	1	0	1	1	1	1	1	1	0	1	0	1	1	11	High
2020-Nelsonville-006 (Former NEL-9)	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities	1	1	0	0	0	1	1	1	0	1	1	0	0	1	8	Medium

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



9.6.8 Proposed Mitigation Action Types

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

Table 9.6-16. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA			CRS						
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Drought				006			006			
Disease Outbreak				006			006			
Earthquake				006			006			
Extreme Temp				006			006			
Flood	002 003	005		006	002 003 005		006			
Harmful Algal Bloom				006			006			
Severe Storm		001 002 003 004 005		006	001 002 003 004 005		006			
Severe Winter Storm		001 002 004 005		006	001 002 004 005		006			
Terrorism				006			006			
Wildfire				006			006			

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

9.6.9 Staff and Local Stakeholder Involvement in Annex Development

The Village of Nelsonville 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 Village Clerk Mindy Jesek and Building Official Bill Bujarski. Mindy and Bill 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.

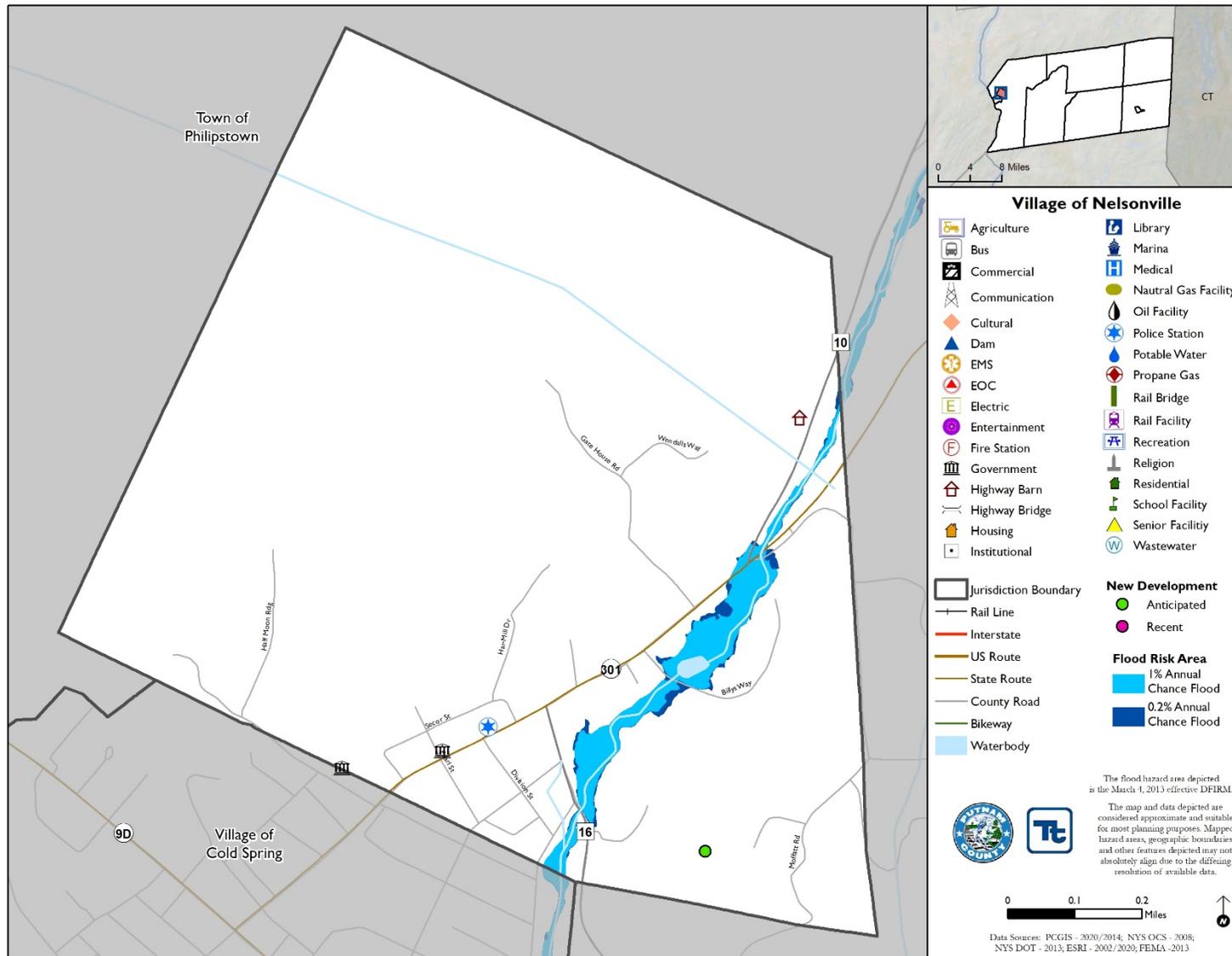
Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meetings).

9.6.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Village of Nelsonville 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 Village of Nelsonville has significant exposure. The map is illustrated below.



Figure 9.6-1. Village of Nelsonville Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Nelsonville Water Supply Backup		
Project Number:	2020-Nelsonville-001		
Risk / Vulnerability			
Hazard(s) of Concern:	All hazard		
Description of the Problem:	The Village has identified vulnerabilities owing to water and electric outages during storm events. The lack of water pressure owing to its existing connection to Cold Spring has also been a concern.		
Action or Project Intended for Implementation			
Description of the Solution:	Connect Nelsonville to the NYCDEP aqueduct to ensure a backup water supply during emergencies.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" 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)			
Level of Protection:	Severe thunderstorms with outages or severe winter storms	Estimated Benefits (losses avoided):	Continued provision of safety for Village residents
Useful Life:	Undetermined	Goals Met:	1, 4, 5
Estimated Cost:	TBD	Mitigation Action Type:	Structural
Plan for Implementation			
Prioritization:	Medium	Desired Timeframe for Implementation:	Within five years
Estimated Time Required for Project Implementation:	Within five years	Potential Funding Sources:	NYC DEP; grants; user fees; capital improvement funds; traffic fee surcharges; application
Responsible Organization:	Village; NYCDEP	Local Planning Mechanisms to be Used in Implementation if any:	Infrastructure planning/hookups; maintain codes
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	High	Lack of protection from hazards
	Install redundant Village water pumps and distribution	Prohibitive	Cost too high for village given existing size and tax base
	NYCDEP Aqueduct Tap	TBD	Most technically feasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Nelsonville Water Supply Backup	
Project Number:	2020-Nelsonville-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	Has been done before in limited situations
Political	1	
Legal	1	
Fiscal	0	Will entail significant capital outlay
Environmental	0	Undetermined environmental impact
Social	1	
Administrative	0	Difficult to administrate due to different systems/bureaucracy; securing funds
Multi-Hazard	1	
Timeline	1	
Agency Champion	0	Project requires additional assistance
Other Community Objectives	1	Fulfills long-term Village goals
Total	9	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Village Sewer Project		
Project Number:	2020-Nelsonville-005		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood; Severe Storm; Severe Winter Storm		
Description of the Problem:	The Village lacks a sewer system connection and many of the existing septic systems in the Village are failing.		
Action or Project Intended for Implementation			
Description of the Solution:	Complete engineering and secure funding to connect the Village residents to the existing sewer system that is currently serving the Village of Cold Spring. This system was designed to care for the future capacity of the village of Nelsonville. Onsite disposal systems are vulnerable to power outages, and flooding for properties in low-lying areas		
Is this project related to a Critical Facility?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Is the critical facility located in the 1% annual chance flood area?	Yes <input type="checkbox"/>	No <input checked="" 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)			
Level of Protection:	N/A	Estimated Benefits (losses avoided):	More reliable and environmentally-friendly wastewater service that is more resistant to natural hazards
Useful Life:	Undetermined	Goals Met:	1, 3, 5
Estimated Cost:	High costs for installation-need to defray for homeowners	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Immediate upon funding
Estimated Time Required for Project Implementation:	3 Years	Potential Funding Sources:	USDA Rural Development; Environmental Protection Agency; CDBG
Responsible Organization:	Village of Nelsonville	Local Planning Mechanisms to be Used in Implementation if any:	Comprehensive Plan
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	Medium	Continued failure of existing septic tanks and cesspools, environmental degradation
	Village Package Treatment Plant	High	Cost to install package treatment plant for the Village alone is too high
	Cold Spring Sewer Connection	High	Most financially and technically feasible option
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Village Sewer Project	
Project Number:	2020-Nelsonville-005	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Public health risks from flooded septic systems
Property Protection	1	Eliminates vulnerable septic systems
Cost-Effectiveness	0	Cost-effectiveness not yet determined
Technical	1	Can be implemented with West Point engineering and local technical resources
Political	1	Supported politically and by residents
Legal	1	No legal impediments
Fiscal	1	Village Capital budget will be used to fund implementation
Environmental	1	No environmental constraints, project reduced environmental risks
Social	1	Benefits residents throughout the Village
Administrative	0	Will require local administrative efforts
Multi-Hazard	1	
Timeline	0	Long-term for implementation as funding is secured and project work is undertaken
Agency Champion	1	Village Board
Other Community Objectives	1	Protection of public health and the environment; improved property values
Total	11	
Priority (High/Med/Low)	High	