

SECTION 9. JURISDICTIONAL ANNEXES

9.18 VILLAGE OF SLOATSBURG

This jurisdictional annex to the Rockland County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Village of Sloatsburg with reducing losses from future hazard events. This annex is not guidance of what to do when a disaster occurs; its focus is on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. The annex presents a general overview of the Village of Sloatsburg, describes who participated in the planning process, assesses the Village’s risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

9.18.1 Hazard Mitigation Planning Team

The Village of Sloatsburg identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Village departments. The Deputy Clerk and Treasurer represented the community on the Rockland County HMP 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.

Table 9.18-1 summarizes Village officials who participated in the development of the annex and in what capacity. Additional documentation of the Village’s planning activities through Planning Partnership meetings is included in Volume 1.

Table 9.18-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Jessica Oms / Deputy Clerk and Treasurer Address: 96 Orange Turnpike, Sloatsburg, NY 10974 Phone Number: (845) 753-2727, ext. 204 Email: jessicaoms@sloatsburgny.com	Name/Title: George Thamsen / Building Inspector, Code Enforcement Officer, and Fire Inspector Address: 96 Orange Turnpike, Sloatsburg, NY 10974 Phone Number: (845) 753-2727, ext. 211 Email: Building@SloatsburgNY.com
National Flood Insurance Program Floodplain Administrator	
Name/Title: George Thamsen / Building Inspector, Code Enforcement Officer, and Fire Inspector Address: 96 Orange Turnpike, Sloatsburg, NY 10974 Phone Number: (845) 753-2727, ext. 211 Email: Building@SloatsburgNY.com	
Additional Contributors	
Name/Title: Eve M. Mancuso, P.E., C.M.E / Engineer Method of Participation: Reviewed Draft Annex, Completed NFIP Summary Form, Completed Capabilities	
Name/Title: George Thamsen / Building Inspector, Code Enforcement Officer, and Fire Inspector Method of Participation: Reviewed Draft Annex, Completed Building Permitting and Projected Development	
Name/Title: Jessica Oms / Deputy Clerk and Treasurer Method of Participation: Reviewed Draft Annex, Completed Building Permitting, Completed Capabilities, Identified Problem Areas	

9.18.2 Municipal Profile

The Village of Sloatsburg was incorporated in 1929 and is located along the western border of the Town of Ramapo in Rockland County (Rockland County 2018). It is bordered to the north, south and east by the Town of Ramapo and to the west by Orange County and New Jersey. The Village of Sloatsburg is bounded on the east by the Harriman State Park, on the west by the New Jersey State Park, to the south by the State of New Jersey and north to the Finger Lakes region (Village of Sloatsburg n.d.). It contains the Ramapo and Stony Brook Rivers and several lakes, including Mirror Lake and Pine Grove Lake. The Village is approximately 2.5 square miles in size and is primarily residential, consisting almost exclusively of single-family detached homes.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2017-2021 American Community Survey indicates that 6.6 percent of the population is 5 years of age or younger, 16.9 percent is 65 years of age or older, 2.2 percent is non-English speaking, 5.5 percent is below the poverty threshold, and 12.5 percent is considered disabled.

9.18.3 Jurisdictional Capability Assessment and Integration

The Village of Sloatsburg performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day local government operations. As part of the hazard mitigation analysis, planning and /policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for the Village of Sloatsburg to identify opportunities for integration of mitigation concepts that can be incorporated into municipal procedures.

Planning, Legal, and Regulatory Capability and Integration

Table 9.18-2 summarizes the regulatory tools that are available to Village of Sloatsburg.

Table 9.18-2. Planning, Legal, and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Codes, Ordinances, & Regulations				
Building Code	Yes	Local Law 1 of 2013 – Uniform Fire Prevention and Building Code	State, Local	Building Inspector/Code Enforcement Office and Fire Inspector
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> This local law provides for the administration and enforcement of the New York State Uniform Fire Prevention and Building Code and the State Energy Conservation Construction Code in the Village of Sloatsburg. All buildings, structures, and premises, regardless of use or occupancy are subject to the provisions of this local law. The Code Enforcement Officer is required to review any flood hazard certifications prior to the issuance of a Certificate of Occupancy or Certificate of Compliance.				
Zoning/Land Use Code	Yes	Chapter 54 Zoning	Local	Zoning Board of Appeals
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> This Zoning Local Law is created in accordance with, and as a means of effectuating, the Comprehensive Plan of the Village of Sloatsburg, New York. Its purpose is to protect and promote public health, safety, morals, comfort, convenience, prosperity, aesthetics, and the general welfare. The Zoning Local Law restricts/prohibits uses that are dangerous to health, safety, or property in times of flood or cause increased flood heights or velocities; requires that uses vulnerable to floods, including public facilities that serve such uses, be provided with flood protection at the time of initial construction; and protects individuals from buying lands that are unsuited for intended purposes because of flood hazards.				
Subdivision Code	Yes	Chapter 54 Zoning, Article IX Environmental Controls	Local	Planning Board
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> Planning Board may require an applicant to submit an application for cluster development where a property exhibits one or more of the following sensitive features. The application of the provisions of this section shall be guided by the important physical, cultural, and natural features of the particular property. Any subdivision in the 100-year floodplain must submit an application before the Planning Board.				
Site Plan Code	Yes	Chapter 54 Zoning, Article XV Site Plan Approval	Local	Planning Board
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> Site plan review provides the Planning Board with the opportunity to review development proposals before the issuance of a construction permit. The review process ensures that all elements in the proposed development will meet the requirements of this chapter and that the product will not adversely affect surrounding properties or cause problems on the site.				
Stormwater Management Code	Yes	Chapter 54 Zoning, Article IX Environmental Controls	Local	Village Engineer
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> The purpose of this section is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the Village's residents and property owners. The ordinance aims to minimize increases in stormwater runoff from land development activities in order to reduce flooding, among other objectives.				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Real Estate Disclosure	Yes	New York State (NYS) mandate, Property Condition Disclosure Act, NY Code – Article 14 §460-467	State, Local	
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> The NYS mandate requires sellers to disclose to potential buyers whether their property is located in a designated floodplain.				
Growth Management	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Environmental Protection Ordinance(s)	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Flood Damage Prevention Ordinance	Yes	Local Law No. 1 of 2014 – Flood Damage Prevention	Federal, State, Local	Building Inspector
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> It is the purpose of this local law to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The Building Inspector administers and implements this local law by granting or denying development permit applications in accordance with its provision. New construction and substantial improvements must be built with two feet freeboard.				
Wellhead Protection	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Emergency Management Ordinance	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Climate Change Ordinance	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Other: Freeboard	Yes	-	State	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> New York State requires new one- and two-family residences to be built with two feet of freeboard and all other construction types with one foot of freeboard. The Flood Damage Prevention Ordinance exceeds this requirement by requiring all residential and non-residential new construction and substantial improvements to be built with two feet freeboard.				
Other: Cumulative Substantial Damage	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Planning Documents				
General/Comprehensive Plan	Yes	Village of Sloatsburg Comprehensive Plan (2007)	Local	Planning Board
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> The Comprehensive Plan enables the Village to achieve its desired land use pattern and maintain its unique sense of community by guiding population growth and development in a manner that maintains the rural woodland character, broadening the Village’s tax base and employment opportunities, protecting the Village’s sensitive environmental features and preserve portions of the Village in its “open” natural state, providing safe, adequate, and efficient roadway network, providing essential infrastructure in existing higher density areas, continuing to provide and expand community facilities when necessary, preserving the Village’s cultural and historic resources, and protecting the visual quality of the Village’s natural environment.				
Capital Improvement Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Disaster Debris Management Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Floodplain Management or Watershed Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Stormwater Management Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Open Space Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Urban Water Management Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Habitat Conservation Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Economic Development Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Community Wildfire Protection Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Community Forest Management Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Transportation Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Agriculture Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Climate Action/ Resiliency/Sustainability Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Tourism Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Business/ Downtown Development Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Other (for example NYRCR, etc.)	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Response/Recovery Planning				
Comprehensive Emergency Management Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Continuity of Operations Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Substantial Damage Response Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Threat & Hazard Identification & Risk Assessment	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Post-Disaster Recovery Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Public Health Plan	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				
Other	No	-	-	-
<i>How has or will this be integrated with the HMP and how does this reduce risk?</i> N/A				

Development and Permitting Capability

Table 9.18-3 summarizes the capabilities of Village of Sloatsburg to oversee and track development.

Table 9.18-3. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Yes/No	Comment:
Do you issue development permits? <ul style="list-style-type: none"> If you issue development permits, what department is responsible? If you do not issue development permits, what is your process for tracking new development? 	Yes	The Building Department issues development permits
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Yes, by floodplain development
Do you have a buildable land inventory? <ul style="list-style-type: none"> If you have a buildable land inventory, please describe 	No	-

Indicate if your jurisdiction implements the following	Yes/No	Comment:
Describe the level of build-out in your jurisdiction.	N/A	The Village is primarily residential area with areas of mixed use along Route 17. Non-residential use is limited to the industrial park along Sterling Mine Road, and a small portion along Route 17. There is space for additional development in the Open Space Residential zone. According to the 2007 Comprehensive Plan, approximately 55 percent of the Village is either vacant land, parkland, or open space; Approximately 24 percent of Sloatsburg’s land area is residential, while 17 percent of the land area is in transportation/utility use; Local commercial (2%), office/industrial (2%), and community services/government (1%) are minor land use categories in the community.

Administrative and Technical Capability

Table 9.18-4 summarizes potential staff and personnel resources available to Village of Sloatsburg and their current responsibilities that contribute to hazard mitigation.

Table 9.18-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
<i>Administrative Capability</i>		
Planning Board	Yes	The Village Planning Board consists of 7 members with 2 alternates and is supported by the Village Attorney and Engineer.
Zoning Board of Adjustment	Yes	The Village Zoning Board of appeals consists of 5 members with 1 alternate and is supported by the Village Attorney and Engineer.
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	The Highway Department is responsible for the maintenance and upkeep of all the Village roads, public facilities and snowplowing services.
Construction/Building/Code Enforcement Department	Yes	The Building Department is responsible for building permit issuance, code violations, and fire inspections.
Emergency Management/Public Safety Department	Yes	The Fire Department is a fully volunteer-run department that is responsible to respond to emergency calls related to fires, fire alarms, vehicle accidents and extrications, brush fires, and hazardous materials incidents.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	Stormwater Consortium of Rockland County
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	No	-

Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
<i>Technical/Staffing Capability</i>		
Planners or engineers with knowledge of land development and land management practices	Yes	Village Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Village Engineer
Planners or engineers with an understanding of natural hazards	No	-
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	-
Environmental scientist familiar with natural hazards	No	-
Surveyor(s)	No	-
Emergency Manager	No	-
Grant writer(s)	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

Fiscal Capability

Table 9.18-5 summarizes financial resources available to Village of Sloatsburg.

Table 9.18-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes – Village Board
Capital improvements project funding	Yes – Village Board
Authority to levy taxes for specific purposes	Yes – Village Board
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes – Village Board
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes – Village Board
Incur debt through special tax bonds	N/A
Incur debt through private activity bonds	N/A
Withhold public expenditures in hazard-prone areas	Yes – Village Board
Other federal or state Funding Programs	Yes – Consolidated Local Street and Highway Improvement Program (CHIP) through NYSDOT
Open Space Acquisition funding programs	Yes – Village Board
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

Education and Outreach Capability

Table 9.18-6 summarizes the education and outreach resources available to Village of Sloatsburg.

Table 9.18-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment:
Public information officer or communications office	No	-
Personnel skilled or trained in website development	Yes	Contracted
Hazard mitigation information available on your website	Yes	The Village uses their municipal website, flyers, etc. to inform citizens on natural hazards within the municipality.
Social media for hazard mitigation education and outreach	Yes	The Village has a Facebook page which can be used for hazard mitigation education and outreach.
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	The County utilizes NY-Alert and CodeRed (the backup to NY-Alert) for emergency notifications (all Towns and Villages have access to it).
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations		
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-
If yes, please describe.	N/A	-

Community Classifications

Table 9.18-7 summarizes classifications for community programs available to Village of Sloatsburg.

Table 9.18-7. 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	-	-
New York State Department of Environmental Conservation (NYSDEC) Climate Smart Community	No	-	-
National Weather Service Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable

— = 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 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 9.18-8 summarizes the adaptive capacity for each identified hazard of concern and the Village’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement.

Table 9.18-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Extreme Temperature	Moderate
Flood	Moderate
Landslide	Moderate
Severe Weather	Moderate
Severe Winter Weather	Moderate
Wildfire	Moderate

9.18.4 National Flood Insurance Program Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Table 9.18-1 is responsible for maintaining this information.

NFIP Summary

Table 9.18-9 summarizes the NFIP statistics for Village of Sloatsburg.

Table 9.18-9. Village of Sloatsburg NFIP Summary of Policy and Claim Statistics

# Policies	25
# Claims (Losses)	58
Total Loss Payments	\$595,914
# Repetitive Loss Properties (NFIP definition)	1
# Repetitive Loss Properties (FMA definition)	8
# Severe Repetitive Loss Properties	1
# Policies Within the 1% Annual Chance Flood Boundary	1

NFIP Definition of Repetitive Loss: The NFIP defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978.

FMA Definition of Repetitive Loss: FEMA’s Flood Mitigation Assistance (FMA) program defines a repetitive loss property as any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

Definition of Severe Repetitive Loss: A residential property covered under an NFIP flood insurance policy and: (a) That has at least four NFIP claim payments over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or (b) For which at least two separate claims payments have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. At least two of the claims must have occurred within any 10-year period, more than 10 days apart.

Source: FEMA, December 2023

Note: RL count may include properties also identified as SRL.

Flood Vulnerability Summary

Table 9.18-10 provides a summary of the NFIP program in Village of Sloatsburg.

Table 9.18-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Flooding at Nacoma Brook – properties abutting the Brook
Do you maintain a list of properties that have been damaged by flooding?	No list is maintained
Do you maintain a list of property owners interested in flood mitigation?	No list is maintained
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? • If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	N/A
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	N/A*
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? • If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? • If not, state why.	Yes

NFIP Topic	Comments
NFIP Compliance	
What local department is responsible for floodplain management?	The Sloatsburg Village Engineer and the Village Building Inspector.
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	No
Does your floodplain management staff need any assistance or training to support its floodplain management program? <ul style="list-style-type: none"> If so, what type of assistance/training is needed? 	No
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit Reviews. The Department of Works does routine inspections and maintains of all catch basins and Village owned areas prone to water damage.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	NYS Building Code
What are the barriers to running an effective NFIP program in the community, if any?	Staffing
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? <ul style="list-style-type: none"> If so, state the violations. 	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	June 5, 2019
What is the local law number or municipal code of your flood damage prevention ordinance?	Local Law 1
What is the date that your flood damage prevention ordinance was last amended?	2014
Does your floodplain management program meet or exceed minimum requirements? <ul style="list-style-type: none"> If exceeds, in what ways? 	The Village meets the Flood Plain Management minimum requirements.
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Yes
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

*Note: *The Village reported it does not have a process to make substantial damage determinations; however, during this planning process, it was confirmed that substantial damage determination provisions are established in both the adopted NFIP ordinance and adopted building code. This response has not been changed to accurately reflect the tools leveraged by the Village to mitigate risks.*

9.18.5 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 appreciating a jurisdiction’s overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 9.18-11 through Table 9.18-13.

Table 9.18-11. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued			Total
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	
2018				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2019				
Total Permits	0	0	1	1
Permits within SFHA	0	0	0	0
2020				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2021				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2022				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

SFHA = Special Flood Hazard Area (1% flood event)

Table 9.18-12. Recent Major Development and Infrastructure from 2018 to Present

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
Valley Rock	Mixed Use	Multiple	38.44-1-11	N/A	Complete

* Only location-specific hazard zones or vulnerabilities identified.

Table 9.18-13. Known or Anticipated Major Development and Infrastructure in the Next Five Years

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
Wintergreen Subdivision	Residential	-	-	N/A	Planning/ Zoning
Stewart Farm	Residential	-	38.50-1-14	N/A	Planning/ Zoning
Aspen Road Subdivision	Residential	-	39.30-1-4	N/A	Planning/ Zoning
Oak Brook Center	Commercial	-	38.52-1-10,11,12,3,14,15	N/A	Planning/ Zoning

* Only location-specific hazard zones or vulnerabilities identified.

9.18.6 Jurisdictional Risk Assessment

The hazard profiles in Volume I provide detailed information regarding each planning partner’s vulnerability to the identified hazards, including summaries of the Village of Sloatsburg risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Village are shown in Figure 9.18-1 through Figure 9.18-2. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Sloatsburg has significant exposure. The maps show the location of potential new development, where available.

Figure 9.18-1. Village of Sloatsburg Flood and Dam Inundation Hazard Area Extent and Location

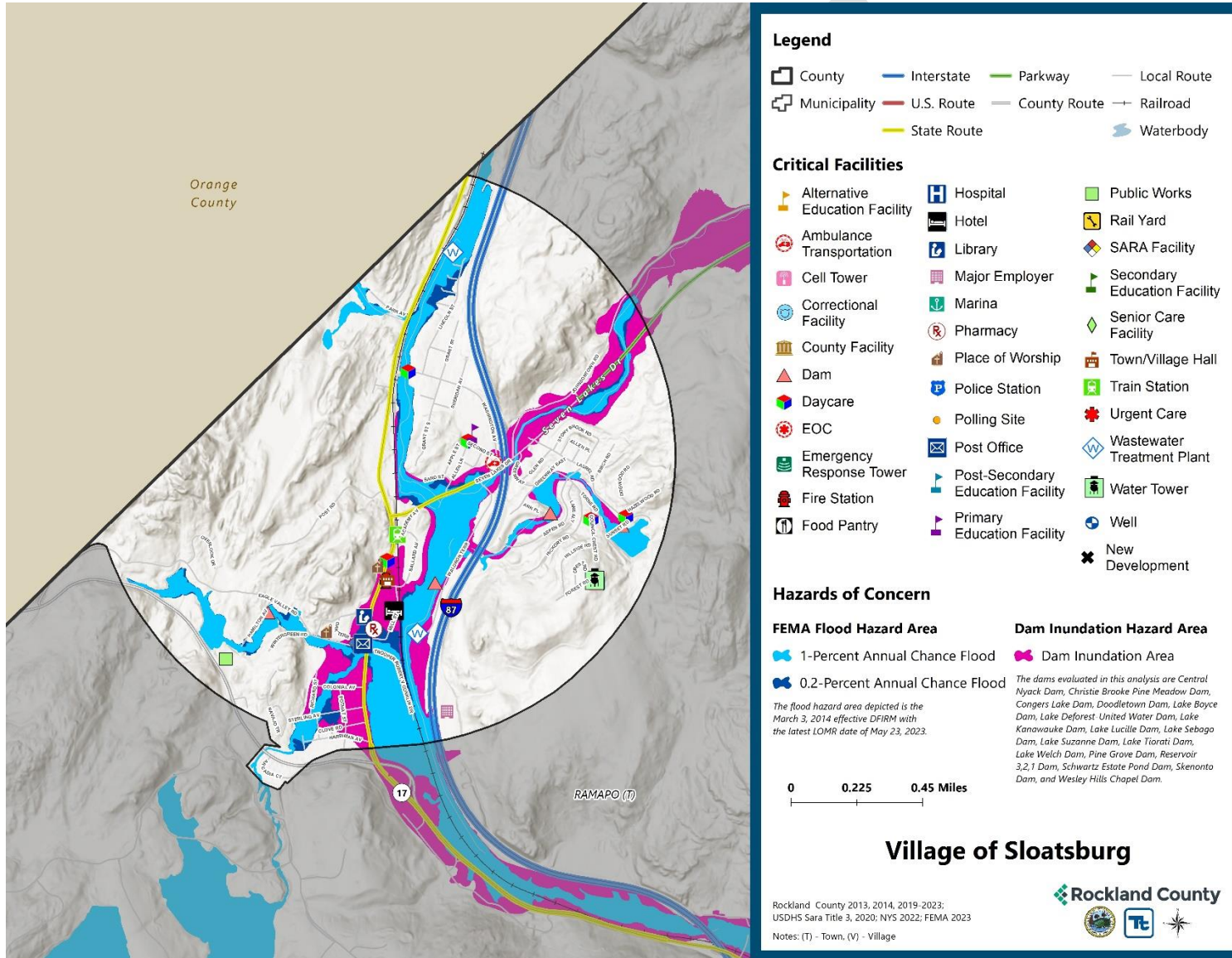
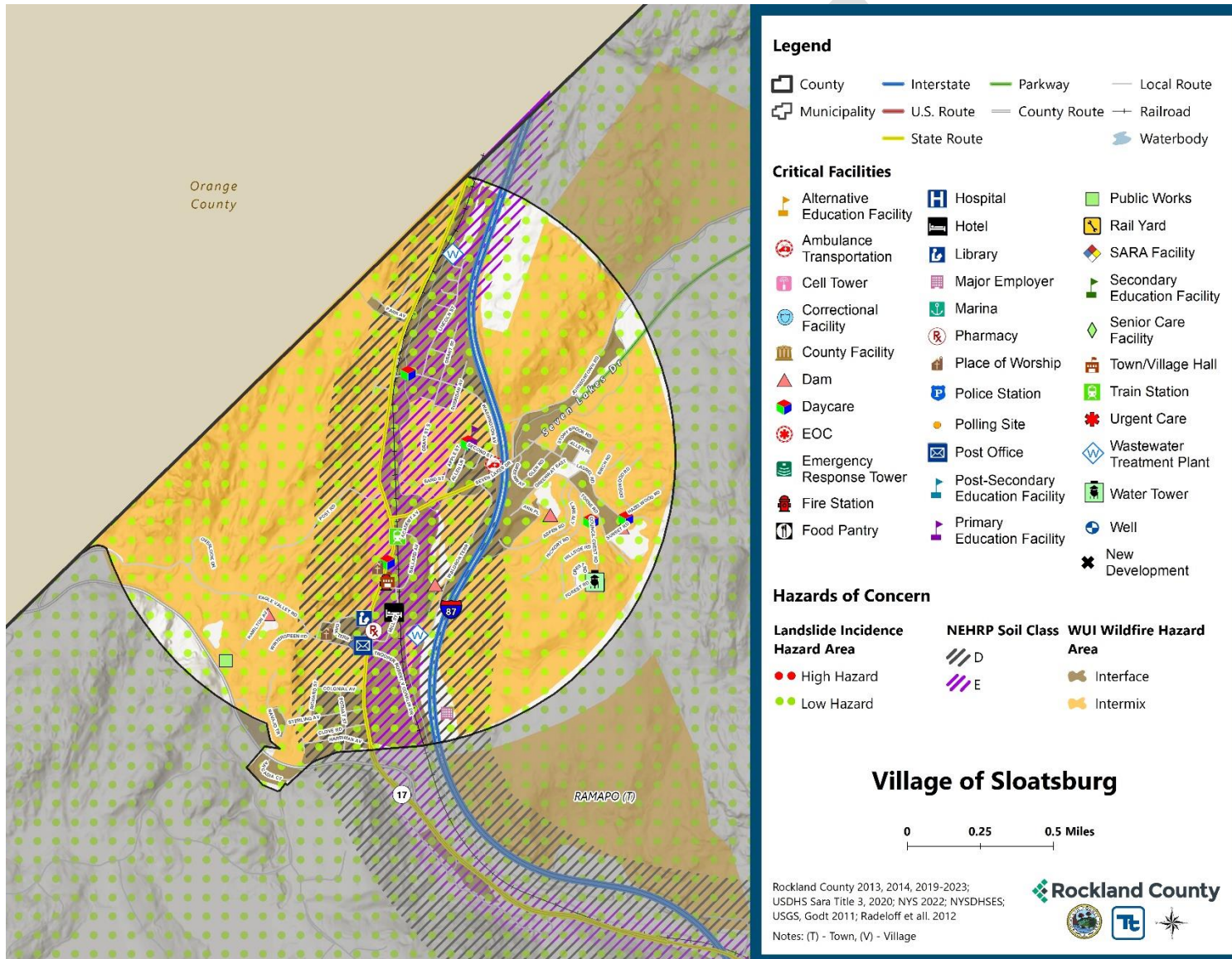


Figure 9.18-2. Village of Sloatsburg Landslide, Earthquake, and Wildfire Hazard Area Extent and Location



Hazard Event History

The history of natural and non-natural hazard events in the Village of Sloatsburg is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 9.18-14 provides details on loss and damage in the Village during hazard events since the last hazard mitigation plan update.

Table 9.18-14. Hazard Event History in the Village of Sloatsburg

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Summary of Damage and Losses in the Village
Jan 20, 2020 - May 11, 2023	New York Covid-19 (3434-EM-NY, 4480-DR-NY)	Yes	The Covid-19 pandemic resulted in nationwide shutdowns, social distancing and masking requirements, and immunization efforts. Since the start of the pandemic, roughly 950 deaths have been reported in Rockland County. The federal Public Health Emergency expired in May 2023 but illness continues to occur as the virus shifts to becoming endemic.	Between 3/2020 and 3/2023 the Village underwent changes in order to accommodate the safety protocols and procedures sent in place by the State. During the shutdown went worked on skeleton shifts in order to minimize exposure, the Village facilities with access to the public were sanitized on a regular basis, barriers were added to human contact areas, six-foot markers were place on the floors and hand sanitizing stations were added throughout the Village offices.
April 13, 2020	High Wind	No	High winds across the county led to downed trees power outages, closed roads, and approximately \$200,000 in property damage.	Fallen trees.
August 4, 2020	New York Tropical Storm Isaias (4567-DR-NY)	Yes	The center of Isaias passed about 65 miles west of New York City at 3 pm on August 4, 2020. Tropical storm force winds extended well east of the center of circulation. In addition, 1 to 3 inches of rainfall, highest west, were recorded across the county. These types of winds and rainfall across the area resulted in numerous trees and tree limbs being downed, power outages, damages to homes and automobiles, and disruption to transit.	Tropical storm Isaias left the streets covered in debris from fallen trees and branches twigs rocks. the debris. the Sloatsburg DPW collected the debris converted it into a 75-yard wood chip pile which was located at the Sloatsburg Community Fields Isais - 148.50 hours of overtime for 4 days of debris removal by the DPW team

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Summary of Damage and Losses in the Village
September 1-3, 2021	New York Remnants of Hurricane Ida (3572-EM-NY, 4615-DR-NY)	Yes	Extremely heavy rainfall associated with the remnants of Hurricane Ida overspread southeast New York during the evening of September 1 and continued through the early morning hours of September 2. Rainfall totals ranged from 5-8 inches across much of the region, with much of that rain falling in just a few hours. This resulted in widespread catastrophic flash flooding.	<p>Hurricane Ida caused severe flooding at the community fields and at our Brook Street Park- 540 SF of rubber surfacing at the Sloatsburg Park had to be removed & replaced, walkways were compromised, a couple of trees needed to be removed and chipped, the pool area had water damage, picnic tables and trash receptacles were damaged to the point they required replacement.</p> <p>The Sloatsburg Fire Department was dispatched to numerous locations on Route 17 to assist people who were left stranded in their vehicles due to flooding.</p> <p>60 regular hours - 19 Overtime hours in debris removal- 2 Ice Commander Rescue Suits were damaged after responding to water rescue calls from people trapped in vehicles.</p>

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

Hazard Ranking and Vulnerabilities

The hazard profiles in Volume 1 have detailed information regarding each planning partner’s vulnerability to the identified hazards. The following summarizes presents key risk assessment results for the Village of Sloatsburg.

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Sloatsburg reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Village indicated the following:

- During the review of the hazard/vulnerability risk ranking, the Village indicated the rankings were accurate.

Table 9.18-15 shows Sloatsburg’s final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 9.18-15. Hazard Ranking

Hazard	Rank
Dam Failure	High
Disease Outbreak	Medium
Drought	Medium
Earthquake	Medium
Extreme Temperature	Medium
Flood	Medium
Landslide	Low
Severe Weather	High
Severe Winter Weather	High
Wildfire	Medium

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 9.18-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 9.18-16. Critical Facilities Flood Vulnerability

Name	Type	Exposure		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
NYS Thruway - Sloatsburg/Ramapo Service Area	Wastewater Treatment Plant	Yes	Yes	2024-SloatsburgV-09	No
Sloatsburg Wastewater Treatment Plant	Wastewater Treatment Plant	Yes	Yes	2024-SloatsburgV-09	No
Conti Pond Dam	Dam	Yes	Yes	2024-SloatsburgV-11	No
Pine Grove Lake Dam	Dam	Yes	Yes	2024-SloatsburgV-11	No
Ramapo River Dam	Dam	Yes	Yes	2024-SloatsburgV-11	No
N.S.C.I.C. Early Head Start	Daycare	Yes	Yes	2024-SloatsburgV-09	No

Source: Rockland County 2023, FEMA

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in or could impact Village of Sloatsburg:

- Pine Grove Lake Dam – Association of Property Owners at Pine Grove
- Lake Sebago Dam – New York Office of Parks, Recreation and Historic Preservation, Palisades Interstate Park Commission

Identified Issues

After review of the Village of Sloatsburg’s hazard event history, hazard rankings, hazard location, and current capabilities, the Village of Sloatsburg identified the following vulnerabilities within their community:

- There is a lack of drainage along Hamilton Avenue and Liberty Rock Road, causing flooding during heavy rains and severe storms.
- The current comprehensive plan does not incorporate natural hazards.
- Flood prone roads can inhibit emergency response and evacuation during a flood.
- The current emergency response plan does not include the functional-needs registry.
- The Village currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about storm mitigation, preparation, response, and recovery.
- Repetitively flooded properties place an undue stress on the property owner and village and efforts should be made to mitigate them. Properties abutting the Nacoma Brook have been identified as experiencing flooding impacts.
- Some facilities were built before code updates; therefore, they may be more susceptible to damage from a hazard event.
- Some of the Village staff are not adequately trained to enforce NFIP regulations and/or floodplain management ordinances. Floodplain management and ordinance enforcement staff are not Certified Floodplain Managers.
- Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery.
- The municipality does not have a Substantial Damage Management Plan in place, nor do they have a standard process in place when conducting substantial damage determinations. The Village has substantial damage determination provisions in both the adopted NFIP ordinance and adopted building code, but staff are unaware of these provisions and do not leverage them.
- There are multiple dams, which are critical infrastructures, located in the 1- and 0.2-percent flood hazard areas. The Village also has potential impacts from high-hazard potential dams, the Pine Grove Dam and Lake Sebago Dam. These structures have the potential to impact those living nearby.

**This issue was identified as a specific area of concern based on resident response to the Rockland County Hazard Mitigation Citizen survey.*

9.18.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritizes actions to address over the next five years.

Past Mitigation Initiative Status

Table 9.18-17 indicates progress on the Village's mitigation strategy identified in the 2019 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

Additional Mitigation Efforts

In addition to the mitigation initiatives completed in Table 9.18-17, Village of Sloatsburg did not identify any mitigation efforts completed since the last HMP.

Table 9.18-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
V. Sloatsburg-1	Bank Stabilization	Flood	Village Board	Properties are subject to flooding and damages. Bank stabilization and flooding mitigation of adjacent private properties.	1. Completed 2. Project along Nakoma Brook and Brook Street Park completed. The Brook Street Park culvert has been replaced.	1. Discontinue 2. N/A 3. Completed
V. Sloatsburg-2	Hamilton Avenue Drainage	Flood	Village Board	No drainage along Hamilton Avenue. Control flooding along Hamilton Avenue which has no drainage presently.	1. No Progress 2. Focus has shifted to other areas that require drainage improvements.	1. Include 2. N/A 3. N/A
V. Sloatsburg-3	Liberty Rock Road Drainage	Severe Storm, Flood	Village Board	Lack of drainage at library on Liberty Rock Road. Flows from Liberty Rock Road - lack of drainage at library causes water to run beneath structure.	1. In Progress 2. Seeking to obtain a study to identify potential methods for drainage.	1. Include 2. N/A 3. N/A
V. Sloatsburg-4	Comprehensive Plan Update	All Hazards	Village, Rockland County Planning	Current comprehensive plan does not incorporate natural hazards. Ensure that local comprehensive plans incorporate natural disaster mitigation techniques through a courtesy review or draft plans by the County Planning Department.	1. No Progress 2. Comprehensive plans have not been updated yet to incorporate natural hazards.	1. Include 2. N/A 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
V. Sloatsburg-5	Public Workshops	All Hazards	Village	Current zoning and planning issues need to incorporate natural hazards and hazard mitigation. Hold periodic workshops regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation.	1. No Progress / Discontinue 2. Discussions on natural hazards occur during planning and zoning meetings as cases are heard.	1. Discontinue 2. N/A 3. Discussions on natural hazards occur during planning and zoning meetings as cases are heard.
V. Sloatsburg-6	Floodplain Management Best Practices	Flood	Village	Best management practices need to stay up to date to ensure properties are protected in the floodplain areas. Continue to implement best management practices for floodplain areas.	1. Ongoing Capability / Discontinue 2. Ongoing efforts to continuously implement best management practices for floodplain areas.	1. Discontinue 2. N/A 3. This is a maintenance action.
V. Sloatsburg-7	Maintain List of Repetitive Flood Property	Flood	Village	Repetitively flooded properties place an undue stress on the property owner and village and efforts should be made to mitigate them. Identify and document repetitively flooded properties. Work with owners to explore mitigation opportunities for repetitively flooded properties, and if appropriate and feasible, carry out acquisition, relocation, elevation and floodproofing measures to protect these properties.	1. In Progress 2. There are current efforts identify and document repetitively flooded properties.	1. Include 2. N/A 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
V. Sloatsburg-8	Flood Prone Road Mitigation Measures	Flood	Village DPW, Rockland County	Flood prone roads can inhibit emergency response and evacuation during a flood. Develop specific mitigation solutions for flood prone road systems (roads, bridges, intersections, drainage, etc.) under the leadership of County DPW.	1. In Progress 2. Conceptual plans have been developed to mitigate stormwater flooding by extending the stormwater conveyance system.	1. Include 2. N/A 3. N/A
V. Sloatsburg-9	Critical Facilities Protection	All Hazards	Village	Some facilities were built before code updates; therefore, they may be more susceptible to damage from a hazard event. Determine the year built and level of protection for critical emergency facilities and shelters to highlight structures built before codes and standards were put in place to provide some degree of protection from natural hazards and pursue potential mitigation opportunities to protect these sites as funding becomes available.	1. Ongoing Capability / Discontinue 2. Continued efforts to provide protection to critical emergency facilities and shelters, including applying for grants.	1. Discontinue 2. N/A 3. Continuous action which will be implemented annually.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
V. Sloatsburg-10	Update Emergency Response Plan	All Hazards	Village, Rockland County	<p>The current emergency response plan does not include the functional-needs registry.</p> <p>Work with Rockland County to obtain access to the functional-needs registry to use as part of the Village’s emergency response plan.</p>	<p>1. In Progress</p> <p>2. Communications with the County have been made, but incorporating the registry into the Village’s emergency response plan must still be performed.</p>	<p>1. Include</p> <p>2. Update the Village’s emergency response plan by utilizing the functional-needs registry which was obtained from Rockland County.</p> <p>3. N/A</p>
V. Sloatsburg-11	Public Awareness Program	All Hazards	Village, Rockland County	<p>The Village currently does not have a comprehensive education and outreach program. There is a need to educate residents about storm preparation, response, and recovery.</p> <p>Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Rockland County on their program that provides information to the municipalities.</p>	<p>1. In Progress</p> <p>2. Producing the materials for outreach has been an obstacle.</p>	<p>1. Include</p> <p>2. N/A</p> <p>3. N/A</p>

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
V. Sloatsburg-12	Update Village Codes	All Hazards	Village	Some facilities were built before code updates; therefore, they may be more susceptible to damage from a hazard event. Code update: review existing local codes and ordinances against the identified hazards to determine whether there needs to be any amendments to address identified hazards and, where a need is identified; modify/amend the codes/ordinances as applicable.	1. No Progress 2. Need to review codes and ordinances	1. Include 2. N/A 3. N/A
V. Sloatsburg-13	Code Enforcement	All Hazards	Village	Some facilities were built before code updates; therefore, they may be more susceptible to damage from a hazard event. Continue enforcement of NYS and local building codes	1. Ongoing Capability / Discontinue 2. This action is a requirement of the Village and must be performed nonetheless.	1. Discontinue 2. N/A 3. This action is a requirement of the Village and must be performed nonetheless.
V. Sloatsburg-14	Flood Damage Prevention Ordinance Update, FEMA Regulations	Flood	Village	Some facilities were built before code updates; therefore, they may be more susceptible to damage from a hazard event. Update/revise floodplain management ordinance to comply with latest FEMA regulations.	1. In Progress 2. Ordinances are being reviewed.	1. Include 2. N/A 3. N/A

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
V. Sloatsburg-15	NFIP Capabilities	Flood	Village	Some of the Village staff are not adequately trained to enforce NFIP regulations and/or floodplain management ordinances. Add/train sufficient members of staff to adequately enforce NFIP regulations/floodplain management ordinances.	1. In Progress 2. Training opportunities are not widely available and staff responsibilities interfere with available trainings	1. Include 2. N/A 3. N/A
V. Sloatsburg-16	Flood Damage Prevention Ordinance Update, FIRMs	Flood	Village	Some facilities were built before code updates; therefore, they may be more susceptible to damage from a hazard event. Update/review floodplain management ordinances to be consistent with potential future new FIRMs.	1. In Progress 2. Ordinances are being reviewed.	1. Include 2. Combine with Action V.-Sloatsburg-14 3. N/A
V. Sloatsburg-17	Certified Floodplain Managers	Flood	Village	Floodplain management and ordinance enforcement staff are not Certified Floodplain Managers. Require staff involved in floodplain management and ordinance enforcement to become Certified Floodplain Managers (CFMs).	1. No Progress 2. Staff responsibilities interfere with available trainings	1. Include 2. Combine with Action V. Sloatsburg-15 3. N/A
V. Sloatsburg-18	Community Rating System	Flood	Village	The Village is not in the CRS program. Consider joining the Community Rating System (CRS).	1. No Progress / Discontinue 2. The Village is not interested in participating in the CRS Program.	1. Discontinue 2. N/A 3. The Village is not interested in participating in the CRS Program.

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
V. Sloatsburg-19	Privately Owned Critical Facilities in Floodplain	Flood	Property Owners with Village Support	<p>Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery.</p> <p>The Village does not have jurisdiction over these facilities to mitigate. The Village will notify the facility manager/operator to evaluate advise of potential mitigation alternatives to consider, potential funding sources for implementation and that NYS requires that any mitigation addresses the 500-year flood event or “worst damage scenario”.</p>	<p>1. No Progress / Discontinue 2. The NYS Thruway maintains its own facilities</p>	<p>1. Discontinue 2. N/A 3. The NYS Thruway maintains its own facilities.</p>

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
V. Sloatsburg-20	Publicly Owned Critical Facility in the Floodplain	Flood	Village Board	<p>Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery.</p> <p>Sloatsburg Wastewater Treatment Plant – raise utilities and other mechanical devices above the BFE. Assure that any mitigation addresses the 500-year flood event or “worst damage scenario”.</p>	<p>1. No Progress / Discontinue 2. The wastewater treatment plant is under the jurisdiction of RCSD</p>	<p>1. Discontinue 2. N/A 3. The wastewater treatment plant is under the jurisdiction of RCSD.</p>

Proposed Hazard Mitigation Initiatives for the HMP Update

Sloatsburg participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Sloatsburg would like to pursue in the future to reduce the effects of hazards. The actions 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 the Village’s priorities.

Table 9.18-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 9.18-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 9.18-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	5	-	-	1	5	2	1	-	-	-
Disease Outbreak	3	-	-	1	3	1	1	-	-	-
Drought	4	-	-	1	4	1	1	-	-	-
Earthquake	4	-	-	1	4	1	1	-	-	-
Extreme Temperature	4	-	-	1	4	1	1	-	-	-
Flood	5	3	-	2	5	2	2	-	3	-
Landslide	4	-	-	1	4	1	1	-	-	-
Severe Weather	4	1	-	1	4	1	1	-	1	-
Severe Winter Weather	4	-	-	1	4	1	1	-	-	-
Wildfire	4	-	-	1	4	1	1	-	-	-

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 structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

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 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 9.18-19. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Community Objectives	Total	High / Medium / Low
2024-SloatsburgV-01	Tributary Flood Remediation	1	1	1	1	1	0	1	1	1	0	1	1	0	1	11	High
2024-SloatsburgV-02	Update Comprehensive Plan	1	1	1	1	1	1	0	1	1	1	0	1	0	1	11	High
2024-SloatsburgV-03	Flood Prone Road Mitigation Measures	0	1	1	1	1	0	1	0	1	0	1	1	0	1	9	Medium
2024-SloatsburgV-04	Emergency Response Plan Update	1	1	1	1	1	1	0	1	1	1	0	1	0	1	11	High
2024-SloatsburgV-05	Public Education and Outreach	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2024-SloatsburgV-06	Repetitive and Severe Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2024-SloatsburgV-07	Hazard Mitigation Integration for Village Codes	0	1	1	1	1	1	0	0	1	1	1	1	0	1	10	Medium
2024-SloatsburgV-08	NFIP Training	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2024-SloatsburgV-09	Privately Owned Critical Facility in Floodplain	0	1	1	1	1	0	0	0	1	0	1	1	1	0	8	Medium
2024-SloatsburgV-10	Substantial Damage Management Plan	0	1	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2024-SloatsburgV-11	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High

Note: Volume 1, Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).

Action 2024-SloatsburgV-01. Tributary Flood Remediation

Action Name:	2024-SloatsburgV-01. Tributary Flood Remediation		
Description of the Problem:	There is a lack of drainage along Hamilton Avenue and Liberty Rock Road, causing flooding during heavy rains and severe storms.		
Hazard(s) of Concern: <i>Check all that apply</i>	<input type="checkbox"/> Dam/Levee Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input checked="" type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Wildfire	
Description of the Solution:	Work with partnering agencies to identify feasible mitigation measures to provide relief from flooding impacts caused by the tributary of the Ramapo River on Hamilton Avenue and Liberty Rock Road. Possible measures include drainage ponds, increasing the size of culverts, and green infrastructure		
Lead Agency:	Village of Sloatsburg		
Supporting Agencies:	Rockland County Drainage Agency		
Estimated Cost:	High		
Potential Funding Sources:	FEMA BRIC, HMGP		
Implementation Timeline:	5 years		
Goals Met:	1, 2, 5		
Benefits:	This action would reduce the flooding impacts felt by the Village from the tributary of the Ramapo River.		
Mitigation Action Type: <i>Check all that apply</i>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category: <i>Check all that apply</i>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Impact on Socially Vulnerable Populations:	This action will assist socially vulnerable populations whose properties are impacted by flooding from the tributary of the Ramapo River. Furthermore, this action will assist in keeping roadways clear of flood waters for the populations which may need to attend medical appointments or require medical attention from first responders.		
Impact on Critical Facilities/Lifelines:	This action would assist in the reduction of roadway flooding from the tributary of the Ramapo River, permitting first responders to traverse the roadways safely.		
Impact on Capabilities	Not applicable		
Impact on Future Development:	Future development in the impacted area will be less likely to be flooded.		
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
Priority: <i>Check one</i>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low

Alternatives	Action	Evaluation
	No action	Current problem remains
	Raise banks of tributary to increase storage capacity	Cost prohibitive
	Construct floodwall along tributary	Cost prohibitive

Action 2024-SloatsburgV-02. Update Comprehensive Plan

Action Name:	2024-SloatsburgV-02. Update Comprehensive Plan	
Description of the Problem:	The current comprehensive plan does not incorporate natural hazards considerations, such as dam/levee areas, flood zones (these are also impacted by severe storms and severe winter storms) and high landslide and wildfire susceptibility areas.	
Hazard(s) of Concern: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Dam/Levee Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Landslide <input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Wildfire
Description of the Solution:	Update Village comprehensive plan. Ensure that local comprehensive plans incorporate natural disaster mitigation techniques through a courtesy review or draft plans by the County Planning Department.	
Lead Agency:	Village of Sloatsburg	
Supporting Agencies:	Planning Board, Rockland County	
Estimated Cost:	Staff time, Low	
Potential Funding Sources:	Village Budget	
Implementation Timeline:	Within 5 years	
Goals Met:	1, 2, 5, 6, 7	
Benefits:	This action will have the Village update its comprehensive plan, which has not been updated in many years. The integration of hazard mitigation principles will present the opportunity for the Village to identify areas of the Village which may be impacted by hazards and plan for future land use accordingly.	
Mitigation Action Type: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
Impact on Socially Vulnerable Populations:	The inclusion of hazard mitigation principles into the comprehensive plan may include discussions on how hazard risks may impact socially vulnerable populations in the Village.	
Impact on Critical Facilities/Lifelines:	Updating the comprehensive plan to include hazard mitigation principles may present an opportunity to discuss hazard risks to critical facilities and lifelines in the Village.	
Impact on Capabilities	This action will update an already existing planning capability of the Village, making it more resilient.	

Impact on Future Development:	This action will have a direct impact on future land use in the Village, as the comprehensive plan guides land use principles in the Village.		
Climate Change Considerations:	As impacts from climate change are increasingly felt, the contents in the Village’s comprehensive plan will need to be updated.		
Priority: <i>Check one</i>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives	Action		Evaluation
	No action		Current problem remains
	Integrate hazard mitigation principles in only plan elements		The plan will miss integration opportunities in the comprehensive plan main document
	Integrate hazard mitigation principles in only comprehensive plan main document		The plan will miss integration opportunities in the plan elements

Action 2024-SloatsburgV-03. Flood Prone Road Mitigation Measures

Action Name:	2024-SloatsburgV-03. Flood Prone Road Mitigation Measures		
Description of the Problem:	The Village has identified multiple flood prone areas and roadways that face an elevated risk to limited access during a flood, which can inhibit emergency response, evacuation efforts, and other service provisions.		
Hazard(s) of Concern: <i>Check all that apply</i>	<input type="checkbox"/> Dam/Levee Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Wildfire	
Description of the Solution:	Develop specific mitigation solutions for flood prone road systems (roads, bridges, intersections, drainage, etc.) under the leadership of County DPW.		
Lead Agency:	Village Public Works		
Supporting Agencies:	Rockland County		
Estimated Cost:	Medium		
Potential Funding Sources:	FEMA BRIC, HMGP, Village Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	2		
Benefits:	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.		
Mitigation Action Type: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Impact on Socially Vulnerable Populations:	This action will assist socially vulnerable populations whose properties are impacted by flooding along flood prone roads.		

Impact on Critical Facilities/Lifelines:	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.		
Impact on Capabilities	Not applicable		
Impact on Future Development:	Future development in the impacted area will be less likely to be flooded.		
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
Priority: Check one	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives	Action		Evaluation
	No action		Current problem continues
	Relocate all flood prone road system		Not feasible
	Raise all flood prone roads		Cost prohibitive

Action 2024-SloatsburgV-04. Emergency Response Plan Update

Action Name:	2024-SloatsburgV-04. Emergency Response Plan Update	
Description of the Problem:	Individuals may require additional or different support and resources to be able to implement the Village’s emergency response plan. The current emergency response plan does not include the functional-needs registry. For instance, individuals that have mobility issues or depend on medical equipment may be unable to evacuate on their own during a dam/levee failure, earthquakes, flood, landslide, landslide, severe winter storm, or wildfire. Those with underlying medical conditions may require additional protective and precautionary measures to mitigate the risks from disease outbreaks, droughts, and extreme temperatures.	
Hazard(s) of Concern: Check all that apply	<input checked="" type="checkbox"/> Dam/Levee Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Landslide <input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Wildfire
Description of the Solution:	Work with Rockland County to obtain access to the functional-needs registry to use as part of the Village’s emergency response plan.	
Lead Agency:	Village of Sloatsburg	
Supporting Agencies:	Rockland County	
Estimated Cost:	Low	
Potential Funding Sources:	Village Budget	
Implementation Timeline:	1 year	
Goals Met:	1, 3, 5	
Benefits:	The Village will have the location of registered members of the socially vulnerable population as well as any emergency or medical information the registrant was willing to share.	

Mitigation Action Type: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
Impact on Socially Vulnerable Populations:	Socially vulnerable populations are able to register to the functional-needs registry to have important emergency and medical information stored in a secure system for first responders.	
Impact on Critical Facilities/Lifelines:	This action allows first responders to understand the emergency and medical needs of registered individuals should assistance be needed.	
Impact on Capabilities	This action will update an already existing planning capability of the Village.	
Impact on Future Development:	Future development will be protected by the Emergency Response Plan.	
Climate Change Considerations:	As impacts from climate change are increasingly felt, the contents in an Emergency Response Plan, including in the basic plan and any annexes, may need to be updated.	
Priority: <i>Check one</i>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium <input type="checkbox"/> Low
Alternatives	Action	Evaluation
	No action	Vulnerable populations will remain unknown
	Do not download information	Population information will not be available to the Village
	Create new system	Cost and start-up restraints

Action 2024-SloatsburgV-05. Public Education and Outreach

Action Name:	2024-SloatsburgV-05. Public Education and Outreach	
Description of the Problem:	Village residents are not aware of hazards that they are exposed to and what can be done to further protect themselves and their properties from damages. The hazards that the Village is at risk for include dam/levee failure, disease outbreak, drought, earthquake, extreme temperature, flood, landslide, severe storm, severe winter storm, and wildfire. The Village currently does not have a comprehensive education and outreach program. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery.	
Hazard(s) of Concern: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Dam/Levee Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Landslide <input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Wildfire
Description of the Solution:	Develop and enhance the public awareness program on hazards, prevention, and mitigation. Continue to work with Rockland County on their program that provides information to the municipalities.	
Lead Agency:	Village of Sloatsburg	
Supporting Agencies:	Rockland County	
Estimated Cost:	Low	
Potential Funding Sources:	Village Budget	

Implementation Timeline:	1 year	
Goals Met:	1, 2, 3, 5	
Benefits:	This action will improve the current public education and outreach program in the Village by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Village.	
Mitigation Action Type: <i>Check all that apply</i>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category: <i>Check all that apply</i>	<input type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the Village.	
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of potential hazards. With these businesses becoming more resilient, this action would contribute to their continuity of operations.	
Impact on Capabilities	This action would build upon the County's already existing public education and outreach program and adapt it to the Village's needs.	
Impact on Future Development:	Not applicable	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.	
Priority: <i>Check one</i>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium <input type="checkbox"/> Low
Alternatives	Action	Evaluation
	No action	Current methods remain the only ones used
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Village
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving the guidance

Action 2024-SloatsburgV-06. Repetitive and Severe Repetitive Loss Properties

Action Name:	2024-SloatsburgV-06. Repetitive and Severe Repetitive Loss Properties	
Description of the Problem:	There is 1 Repetitive Loss and 1 Severe Repetitive Loss property in the Village. These properties exhibit elevated vulnerability and may face increasing risks to flood damage due to changes in precipitation intensity and frequency, raising the possibility for these properties to become Repetitive/Severe Repetitive Loss Properties. These properties may require a disproportionate amount of municipal resources after hazard events if they are damaged.	
Hazard(s) of Concern: <i>Check all that apply</i>	<input type="checkbox"/> Dam/Levee Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Wildfire

Description of the Solution:	The Village will 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) and Severe Repetitive Loss (SRL), 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.		
Lead Agency:	Floodplain Administrator		
Supporting Agencies:	Rockland County		
Estimated Cost:	Medium		
Potential Funding Sources:	FEMA FMA, FMA SWIFT, Village Budget, County Budget, Property Owners		
Implementation Timeline:	3 years		
Goals Met:	1, 2, 3		
Benefits:	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.		
Mitigation Action Type: <i>Check all that apply</i>	<input type="checkbox"/> Local Plans and Regulations (LPR)	<input type="checkbox"/> Natural Systems Protection (NSP)	
	<input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category: <i>Check all that apply</i>	<input type="checkbox"/> Preventative Measures (PR)	<input type="checkbox"/> Natural Resource Protection (NR)	
	<input type="checkbox"/> Property Protection (PP)	<input checked="" type="checkbox"/> Structural Flood Control Projects (SP)	
	<input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Emergency Services (ES)	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.		
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.		
Impact on Capabilities	This action will enhance the Village’s current NFIP capabilities.		
Impact on Future Development:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.		
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.		
Priority: <i>Check one</i>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives	Action		Evaluation
	No action		Current problem continues
	Construct flood walls/barriers around vulnerable areas		Costly and can divert floodwaters to other areas
	Deployable flood barriers for vulnerable areas		Requires a great deal of work to implement prior to each event

Action 2024-SloatsburgV-07. Hazard Mitigation Integration for Village Codes

Action Name:	2024-SloatsburgV-07. Hazard Mitigation Integration for Village Codes		
Description of the Problem:	Some facilities were built before code updates; therefore, they may be more susceptible to damage from dam/levee failures, disease outbreaks, drought, earthquakes, extreme temperatures, floods, landslides, severe storms, severe winter storms, and wildfires.		
Hazard(s) of Concern: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Dam/Levee Failure <input checked="" type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Landslide <input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Wildfire	
Description of the Solution:	Code update: review existing local codes and ordinances against the identified hazards to determine whether there needs to be any amendments to address identified hazards and, where a need is identified; modify/amend the codes/ordinances as applicable.		
Lead Agency:	Village of Sloatsburg		
Supporting Agencies:	Code Enforcement, Floodplain Administrator, Zoning Officer, Planning Board, Zoning Board		
Estimated Cost:	Low		
Potential Funding Sources:	Village Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 2, 5, 7		
Benefits:	This action will ensure Village codes and ordinances integrate hazard mitigation principles and incorporate current risks from identified hazards.		
Mitigation Action Type: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations may not have direct access to codes and plans, nor speak the language that they are written in.		
Impact on Critical Facilities/Lifelines:	Critical facilities and lifelines will be expected to follow updated plans and codes.		
Impact on Capabilities	The Village’s capability to handle hazard events is greatly improved by integrating hazard mitigation into other plans and codes.		
Impact on Future Development:	This action could result in restrictions for future development.		
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action permits the Village to strengthen its codes in anticipation of future conditions.		
Priority: <i>Check one</i>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low

Alternatives	Action	Evaluation
	No Action	-
	Rely on County Plans/Codes	Plans are not specific to the Village and the relevant mitigation issues that they have apart from the County
	Create additional hazard mitigation information	Integrating relevant plans/codes together makes them more useful than creating additional separate documents

Action 2024-SloatsburgV-08. NFIP Training

Action Name:	2024-SloatsburgV-08. NFIP Training	
Description of the Problem:	The Village faces increasing flood risks due to more intense precipitation events. Incorporating best practices and the most up-to-date NFIP guidance will better protect the Village, its residents, and their properties from potential damage. However, some of the Village staff are not adequately trained to enforce NFIP regulations and/or floodplain management ordinances. Floodplain management and ordinance enforcement staff are not Certified Floodplain Managers.	
Hazard(s) of Concern: <i>Check all that apply</i>	<input type="checkbox"/> Dam/Levee Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Wildfire
Description of the Solution:	Provide training and/or certification for Village staff with NFIP regulations and floodplain management ordinances. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager’s CFM Certification Program.	
Lead Agency:	Floodplain Administrator	
Supporting Agencies:	Village of Sloatsburg	
Estimated Cost:	Low	
Potential Funding Sources:	Village Budget	
Implementation Timeline:	Within 5 years	
Goals Met:	1, 3, 6	
Benefits:	This action will increase the NFIP capabilities of the Village and assure the Village’s NFIP program has enough staff to accomplish its goals and reach NFIP compliance.	
Mitigation Action Type: <i>Check all that apply</i>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category: <i>Check all that apply</i>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
Impact on Socially Vulnerable Populations:	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.	

Impact on Critical Facilities/Lifelines:	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.		
Impact on Capabilities	This action will enhance the Village’s current NFIP capabilities.		
Impact on Future Development:	Officials that understand best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.		
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will educate staff on NFIP regulations to assist with the flood hazard.		
Priority: Check one	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives	Action		Evaluation
	No Action		-
	Hire outside contractors for floodplain administration		Costly
	Establish shared service agreements for floodplain administration from neighboring municipalities		Neighboring municipalities are unlikely to have the staff capacity to take on this role

Action 2024-SloatsburgV-09. Privately Owned Critical Facility in Floodplain

Action Name:	2024-SloatsburgV-09. Privately Owned Critical Facility in Floodplain	
Description of the Problem:	Critical facilities located in the floodplain are not only susceptible to flood damage but also create unnecessary complications for the municipality during an emergency event and post-disaster recovery. The Village does not have the authority to implement mitigation actions to all of these structures.	
Hazard(s) of Concern: Check all that apply	<input type="checkbox"/> Dam/Levee Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Wildfire
Description of the Solution:	Coordinate with the facility managers at the Sloatsburg Wastewater Treatment Plant, N.S.C.I.C. Early Head Start, and NYS Thruway - Sloatsburg/Ramapo Service Area in the Village to support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or relocation to protect structures from future damage. Phase 1: Identify most cost-effective mitigation option Phase 2: Work with facility manager to implement selected action based on available funding and local match ability.	
Lead Agency:	Village of Sloatsburg	
Supporting Agencies:	Facility Managers	
Estimated Cost:	High	
Potential Funding Sources:	FEMA BRIC, HMGP, Village Budget, Private Owners	
Implementation Timeline:	5 years	

Goals Met:	1, 2, 3	
Benefits:	This action will remove or reduce critical facility and community lifeline vulnerability to the flood hazard and remove or reduce safety risks for first responders.	
Mitigation Action Type: <i>Check all that apply</i>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category: <i>Check all that apply</i>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
Impact on Socially Vulnerable Populations:	Retrofitting or relocating the identified structures will benefit socially vulnerable populations, as individuals within these populations rely on resources from various government facilities, transportation facilities, and medical and senior care facilities.	
Impact on Critical Facilities/Lifelines:	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.	
Impact on Capabilities	This action will enhance the Village’s current NFIP capabilities.	
Impact on Future Development:	Noting the number of facilities located within the flood hazard area may encourage the consideration of relocating critical facilities and lifelines from the flood hazard area and deter the development of any additional facilities in the flood hazard area.	
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. As sea level rises due to climate change, the area of the flood hazard may expand.	
Priority: <i>Check one</i>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium <input type="checkbox"/> Low
Alternatives	Action	Evaluation
	No action	Current problem continues
	Floodproof existing structures	May not necessarily reduce risk
	Construct floodwalls to stop flood issues	Will most likely interrupt natural floodplain function

Action 2024-SloatsburgV-10. Substantial Damage Management Plan

Action Name:	2024-SloatsburgV-10. Substantial Damage Management Plan	
Description of the Problem:	The municipality does not have a Substantial Damage Management Plan in place, nor do they have a standard process in place when conducting substantial damage determinations. The Village has substantial damage determination provisions in both the adopted NFIP ordinance and adopted building code, but staff are unaware of these provisions and do not leverage them.	
Hazard(s) of Concern: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Dam/Levee Failure <input type="checkbox"/> Disease Outbreak <input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Landslide <input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Wildfire

Description of the Solution:	<p>The municipality will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan (https://crsresources.org/files/500/developing_subst_damge_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p> <p>The municipality will also take part in workshops and training sessions offered by NYSDEC to train staff on the existing provisions in the NFIP ordinance and building code.</p>	
Lead Agency:	Floodplain Administrator	
Supporting Agencies:	Public Works, OEM, Building Department, Engineering	
Estimated Cost:	Low	
Potential Funding Sources:	Municipal budget	
Implementation Timeline:	Within 5 years to develop the plan; ongoing to maintain and update the plan	
Goals Met:	2, 5, 7	
Benefits:	This plan will provide a process in making Substantial Damage Determinations and allow the municipality to make these determinations and meet NFIP requirements more quickly.	
Mitigation Action Type: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)
Impact on Socially Vulnerable Populations:	Substantially damaged structures are required to be rebuilt to be compliance with current codes. Socially vulnerable populations may not have the financial means to make these improvements. This action may allow for the identification of potential resources to address substantial damages to structures owned by socially vulnerable populations.	
Impact on Critical Facilities/Lifelines:	A Substantial Damage Management Plan would include all critical facilities and lifelines in the municipality.	
Impact on Capabilities	This action improves disaster recovery capabilities.	
Impact on Future Development:	A Substantial Damage Management Plan would include all existing, current, and future development in the municipality.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action provides additional planning for disaster recovery.	
Priority: <i>Check one</i>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium <input type="checkbox"/> Low
Alternatives	Action	Evaluation
	No Action	-
	Rely on state or federal resources following disaster events	Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations	A plan outlining responsibilities is still necessary to prevent missing important requirements

Action 2024-SloatsburgV-11. Dam Owner Partnership

Action Name:	2024-SloatsburgV-11. Dam Owner Partnership	
Description of the Problem:	There are multiple dams (Conti Pond Dam, Pine Grove Lake Dam, and Ramapo River Dam), which are critical facilities, located in the 1- and 0.2-percent flood hazard areas that contain or are adjacent to existing residential areas. The Village also has potential impacts from high-hazard potential dams, the Pine Grove Dam and Lake Sebago Dam located outside of its boundaries. The municipality does not own all the dams in its jurisdictions and cannot itself implement mitigation actions to the structures.	
Hazard(s) of Concern: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Dam/Levee Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Wildfire
Description of the Solution:	Work with the owners of the dams to ensure inspections and safety procedures are up to date. Identify mitigation actions to ensure the integrity of the dams and that it is protected up to the 0.2-percent flood hazard area.	
Lead Agency:	Village of Sloatsburg	
Supporting Agencies:	Dam Owners, NYSDEC	
Estimated Cost:	Low	
Potential Funding Sources:	Village Budget	
Implementation Timeline:	Within 5 years	
Goals Met:	1, 2, 3, 5	
Benefits:	This action will improve the safety and security of those who live within the dam inundation areas of the dams and increase the resilience of responding agencies. It will also increase communication between the municipality and the dam owners, which can be important during hazard events or other emergencies.	
Mitigation Action Type: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category: <i>Check all that apply</i>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input checked="" type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)
Impact on Socially Vulnerable Populations:	The action will result in better preparedness within the Special Flood Hazard Area and inundation areas where significant risk to socially vulnerable populations exist.	
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam.	
Impact on Capabilities	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.	
Impact on Future Development:	Depending on the result of this partnership, future development near the dams may be provided with better protection from dam failure events due to improved procedures and communication, as well as any physical improvements to the structures	
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.	

Priority: <i>Check one</i>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives	Action	Evaluation	
	No Action	Village will be unaware of any safety concerns for the dam or its condition	
	Utilize information from NYSDEC	Owners may not be required to submit a safety plan to the State	
	Utilize information from the National Inventory of Dams	Not all dams are listed on the inventory	