

9.8 VILLAGE OF HILLBURN

This section presents the jurisdictional annex for the Village of Hillburn.

9.8.1 Hazard Mitigation Plan Point of Contact

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

Primary Point of Contact	Alternate Point of Contact
Craig Flanagan, Mayor 31 Mountain Avenue, Hillburn, NY 10931 845-357-2036 hillburnmain@optonline.net	Bonnie O’Blenis, Deputy Mayor 31 Mountain Avenue, Hillburn, NY 10931 845-357-2036 hillburnmain@optonline.net
NFIP Floodplain Administrator (FPA)	
Adam Gordon, Building/Fire Inspector 845-357-2036 agordon@hillburn.org	

9.8.2 Municipal Profile

The Village of Hillburn is located in the Town of Ramapo in Rockland County. It is approximately 40 miles from New York City. The Village is bordered to the north and west by the Town of Ramapo, to the south by New Jersey, and to the east by the Village of Suffern. The Ramapo River flows through the Village, following Interstate 87. The Village has a total area of 2.2 square miles. According to the 2010 Census, the Village’s population was 951.

Growth/Development Trends

The following table summarizes recent residential/commercial development since 2010 to present and any known or anticipated major residential/commercial development and major infrastructure development that has been identified in the next five years within the municipality. Refer to the map in 9.8.8 of this annex which illustrates the hazard areas along with the location of potential new development.

Table 9.8-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2010 to present					
Rockland County Hsg Coalition	Res.	3 unit attached dwelling	62, 64, 66 6 th St. 47.18-2-38.1, 2 & 3	NEHRP: D; WUI: Interface	Complete
TJG Realty of Rockland	Comm.	Office/warehouse	260 Route 17 47.14-2-41	NEHRP: D; WUI: Interface	Complete
Dynamic Developers	Res.	1 family dwelling	30 Boulder Ave. 47.14-1-11	None Identified.	Complete
Aukadiusz Kowalski	Res.	1 family dwelling	28 7 th St. 47.18-1-76	None Identified.	Complete
United Water NY	Comm.	Ramapo Valley Well Field. Imp.	65 Route 59 47.15-1-1	Flood: 1% Chance; NEHRP: E	Complete
Salomone Bros.	Comm.	Conversion of building to redi-mix concrete plant	20-60 Torne Valley Rd. 47.15-2-11 & 12	None Identified.	Near Completion

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
Known or Anticipated Development in the Next Five (5) Years					
Building Permit Issued for new single family residence @111 Sixth Street, Jay Kim, 47.18-1-28 2					
Building permit issued for new cell phone antennas @296 Route 17, Verizon Wireless/Mt. Fuji, 47.14-2-1					
Building permits issued for renovation of bar & new kitchen, same address as above					

* Only location-specific hazard zones or vulnerabilities identified.

9.8.3 Natural Hazard Event History Specific to the Municipality

Rockland County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. For the purpose of this plan update, events that have occurred in the County from 2008 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available, based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.8-2. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	Rockland County Designated?	Summary of Damages/Losses
December 26-27, 2010	Winter Storm (DR-1957)	Yes	DPW overtime for snow plowing - \$2,099.96
August 27-28, 2011	Hurricane Irene (DR-4020)	Yes	4 th Street (River Bridge) was closed due to flooding; Sixth Street had a shoulder wash out which was replaced with rip rap. There was roadway damage from Boulder Avenue to Reservoir Gate. The Village had over \$12,000 in overtime, equipment use, damages, and cleanup costs.
October 28-29, 2012	Hurricane Sandy (DR-4085)	Yes	There were numerous road closures and power outages in the Village. Route 17 had downed trees and wires; 6 th Street and Mountain Avenue had downed branches and wires; 4 th Street had downed trees and wires; and 5 th Street and Hickory Avenue had downed trees. The Village had over \$7,000 in overtime, administration costs, equipment use and material.

Notes:

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

9.8.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Village of Hillburn. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Natural Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Village of Hillburn.



Table 9.8-3. Hazard Risk/Vulnerability Risk Ranking

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
Drought	Damage estimate not available	Frequent	39	High
Earthquake	100-Year GBS: \$0 500-Year GBS: \$185,149 2,500-Year GBS: \$3,147,821	Occasional	32	High
Extreme Temperature	Damage estimate not available	Frequent	18	Medium
Flood	1% Annual Chance: \$12,000,000	Frequent	36	High
Landslide	RCV Exposed: \$0	Rare	6	Low
Severe Storm	100-Year MRP: \$57,888 500-year MRP: \$168,839 Annualized: \$2,693	Frequent	48	High
Winter Storm	1% GBS: \$1,547,490 5% GBS: \$7,737,450	Frequent	51	High
Wildfire	Estimated Value in the WUI: \$216,387,000	Frequent	54	High

Notes:

- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
- b. The valuation of general building stock and loss estimates was based on custom inventory for the municipality.
High = Total hazard priority risk ranking score of 31 and above
Medium = Total hazard priority risk ranking of 20-30+
Low = Total hazard risk ranking below 20
- c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- d. Loss estimates for the flood and earthquake hazards represent both structure and contents.
- e. The HAZUS-MH earthquake model results are reported by Census Tract.

National Flood Insurance Program (NFIP) Summary

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

Table 9.8-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)
Village of Hillburn	13	31	\$1,267,279	0	0	1

Source: FEMA Region 2, 2016

- (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of 06/30/2016. The total number of repetitive loss properties does not include the severe repetitive loss properties. The number of claims represents claims closed by 06/30/16.
- (2) Total building and content losses from the claims file provided by FEMA Region 2.
- (3) The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file.

Notes: FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility. A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case. Number of policies and claims and claims total exclude properties located outside county boundary, based on provided latitude and longitude.

Critical Facilities

The table below presents the critical facilities identified in the HMP that are located in the FEMA-delineated 1-and/or 0.2-percent annual chance floodplain. The table also summarizes the Hazards United States (HAZUS) – Multi-Hazards (MH) damage estimates (if any) to each critical facility as a result of the 1-percent annual chance flood event.

Table 9.8-5. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event	
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage
O & R Hillburn Substation	Hazmat		X	-	-
St. Lawrence Center	Shelter	X	X	-	-
Fourth Street	Wastewater Pump		X	-	-

Source: Hazus-MH 3.2, Rockland County

Other Vulnerabilities Identified

The municipality has identified the following vulnerabilities within their community:

- According to the 2014 Rockland County Flood Insurance Study (FIS), floods have been a recurring problem along the Ramapo River. The Village is subject to flooding from the River along its length through the Village. The Creelman Road area and areas in the vicinity of the Conrail station are particularly susceptible to flooding (FEMA FIS 2014).

9.8.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of mitigation planning into existing and future planning mechanisms

Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Hillburn.

Table 9.8-6. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan	In Progress			

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Capital Improvements Plan	No			
Floodplain Management / Basin Plan	Yes 1/14/14	Local	Village Engineer, Local Administration	Village Code Chap. 130 – Flood Damage Prevention
Stormwater Management Plan	Yes 5/15/08	Local	Stormwater Mgt. Officer	Village Code Chap. 198 – Stormwater Management
Open Space Plan	No			
Stream Corridor Management Plan	Yes 12/13/06	Local	Planning Board	Village Code Chap. 240 – Wetlands and Stream Protection
Watershed Management or Protection Plan	Yes 12/13/06	Local	Planning Board	Village Code Chap. 240 – Wetlands and Stream Protection
Economic Development Plan	No			
Comprehensive Emergency Management Plan	No			
Emergency Operation Plan	Yes 9/27/06	Local	Village Board	
Post-Disaster Recovery Plan	No			
Transportation Plan	No			
Strategic Recovery Planning Report	No			
Other Plans:	No			
Regulatory Capability				
Building Code	Yes	State & Local	Building/Fire Inspector	Chapter 80 – Building Construction & Fire Prevention
Zoning Ordinance	Yes 4/26/1989	Local	Zoning Board	Chapter 250 – Zoning
Subdivision Ordinance	Yes 1991	Local	Village	Chapter 210 – Subdivision and Site Plan Regulations
NFIP Flood Damage Prevention Ordinance	Yes 2014	Federal, State, Local	Village Engineer	Chapter 130 – Flood Damage Prevention
NFIP: Cumulative Substantial Damages	No			
NFIP: Freeboard	Yes	State, Local	Village Engineer	State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other construction types
Growth Management Ordinances				
Site Plan Review Requirements	Yes 3/13/1991	Local	Planning Board	Chapter 210 – Subdivision and Site Plan Regulations
Stormwater Management Ordinance	Yes 5/15/2008	Local	Stormwater Mgt. Officer	Chapter 198 – Stormwater Management
Municipal Separate Storm Sewer System (MS4)	Yes 5/15/08	Local	Stormwater Mgt. Officer	Chapter 198 – Stormwater Management
Natural Hazard Ordinance	No			
Post-Disaster Recovery Ordinance	No			
Real Estate Disclosure Requirement	Yes	State		NYS mandate, Property Condition Disclosure Act, NY Code - Article 14

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
				§460-467
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	No			

Administrative and Technical Capability

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

Table 9.8-7. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board, Zoning Board of Appeals
Mitigation Planning Committee	No	
Environmental Board/Commission	No	
Open Space Board/Committee	No	
Economic Development Commission/Committee	No	
Maintenance programs to reduce risk	No	
Mutual aid agreements	Yes	Hillburn Fire Department
Technical/Staffing Capability		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Village Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Village Engineer
Planners or engineers with an understanding of natural hazards	Yes	Village Engineer
NFIP Floodplain Administrator (FPA)	Yes	Village Engineer
Surveyor(s)	No	
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	
Scientist familiar with natural hazards	No	
Emergency Manager	No	
Grant writer(s)	No	
Staff with expertise or training in benefit/cost analysis	No	
Professionals trained in conducting damage assessments	Yes	Village Engineer

Fiscal Capability

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

Table 9.8-8. Fiscal Capabilities

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

Community Classifications

The table below summarizes classifications for community program available to the Village of Hillburn.

Table 9.8-9. Community Classifications

Program	Do you have this? (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)	Yes	Class 4	3/3/2011
NYSDEC Climate Smart Community	No		
Storm Ready Certification	No		
Firewise Communities classification	No		
Natural disaster/safety programs in/for schools	No		
Organizations with mitigation focus (advocacy group, non-government)	No		
Public education program/outreach (through website, social media)	No		
Public-private partnership initiatives addressing disaster-related issues	No		

Note:

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

The classifications listed above relate to the community’s ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community’s capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are

used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO’s Public Protection website at <https://www.isomitigation.com/ppc/>
- The National Weather Service Storm Ready website at <http://www.stormready.noaa.gov/index.html>
- The National Firewise Communities website at <http://firewise.org/>

Self-Assessment of Capability

The table below provides an approximate measure of the Village of Hillburn’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.8-10. Self-Assessment Capability for the Municipality

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)*	Moderate	High
Planning and regulatory capability			X
Administrative and technical capability		X	
Fiscal capability	X		
Community political capability		X	
Community resiliency capability		X	
Capability to integrate mitigation into municipal processes and activities		X	

National Flood Insurance Program

NFIP Floodplain Administrator (FPA)

Brooking Engineering, PLLC (Village Engineer)

Flood Vulnerability Summary

The Village does not maintain lists/inventories of properties that have been damaged by floods.

Resources

The municipal FPA is the sole person assuming the responsibilities of floodplain administration. NFIP services provided by the FPA include application review, issue of permits, and conducting required inspections. Education and/or outreach regarding flood risk or flood risk reduction is not provided to the community. The FPA indicated that there are currently no barriers to running an effective floodplain management program and that they feel adequately supported and trained to fulfill the role as the FPA.

Compliance History

The Village is currently in good standing with the NFIP and the most recent compliance audit was conducted on March 3, 2014.

Regulatory

The Village's flood damage prevention ordinances meets the minimum set by FEMA and New York State. The municipality does have other local ordinances, plans and programs in place that support floodplain management.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures.

Planning

Master Plan: The Village is currently preparing a master plan which will include areas of natural hazard risk and refer to the countywide hazard mitigation plan.

Planning and Zoning Boards: The planning and zoning boards use the Village's zoning local law, Rockland County Department of Planning, and floodplain administration to guide their decisions with respect to natural hazard risk management.

Regulatory and Enforcement

Construction Codes, Uniform, Chapter 80: The building codes are strictly enforced to make new and renovated buildings as prepared as possible for hazard related incidents. The Village complies with New York State Uniform Fire Prevention and Building Code (the Uniform Code) and the State Energy Conservation Construction Code (the Energy Code).

Flood Damage Prevention Ordinance, Chapter 130: The purpose of the ordinance is to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- Regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters;
- Control filling, grading, dredging and other development which may increase erosion or flood damages;
- Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands; and
- Qualify for and maintain participation in the National Flood Insurance Program

The Village Engineer is appointed as the local administrator to administer and implement the ordinance by granting or denying floodplain development permits in accordance with its provisions.

Sewers, Chapter 192: The purpose of this law is to establish acceptable methods of sanitary sewer construction in the village. Dedication, acceptance, or permission to use the sanitary sewers cannot be given until the Village Engineer or designee have certified to the Village Board that the sanitary sewers have been completed in accordance with the provided plans and specifications.

Illicit Discharges and Connections to Storm Sewer System, Chapter 192, Article 2: The purpose of this article is to provide for the health, safety and general welfare of the residents of the Village through the regulation of non-stormwater discharges to the municipal separate storm sewer system (MS4) to the maximum extent practicable as required by federal and New York State law. This article establishes methods for controlling the introduction of pollutants into the MS4 in order to comply with requirements of the SPDES General Permit for Municipal Separate Storm Sewer Systems. The Stormwater Management Officer will administer, implement and enforce the provisions of the article. Objectives for this article are as follows:

- To meet the requirements of the SPDES General Permit for Stormwater Discharges from MS4s, Permit No. GP-02-02, as amended or revised;
- To regulate the contribution of pollutants to the MS4 since such systems are not designed to accept, process or discharge non-stormwater wastes;
- To prohibit illicit connections, activities and discharges to the MS4;
- To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this article; and
- To promote public awareness of the hazards involved in the improper storage and/or discharge of trash, yard waste, lawn chemicals, pet waste, wastewater, grease, oil, petroleum products, cleaning products, paint products, hazardous waste, sediment, snow and ice control materials, and other pollutants into the MS4.

Wetlands and Stream Protection, Chapter 240: The Wetlands and Stream Protection code implements the Freshwater Wetlands Act of the State of New York (Article 24 of the Environmental Conservation Law) and applies to property within the Village. It promotes the public purposes identified by providing for the protection, preservation, proper maintenance and use of the Village's wetlands, water bodies and watercourses by preventing or minimizing erosion due to flooding and stormwater runoff, by maintaining the natural groundwater supplies, preserving and protecting the purity, utility, water retention capability, ecological functions, recreational usefulness and natural beauty of all wetlands, waterbodies and other related features and by providing and protecting appropriate habitats for natural wildlife.

Zoning, Chapter 250: The Zoning code was created to protect and promote the public health, safety, morals, comfort, convenience, prosperity, esthetics and general welfare of the people of the Village of Hillburn. The code is intended to carry out the following objectives:

- To prevent excessively dense development.
- To provide adequate access of light and air to buildings, particularly residences.
- To provide privacy for residents and screen them from unsightly uses.
- To provide usable outdoor space for all residents.
- To facilitate the provision of adequate commercial facilities and services.
- To protect residences, commercial and manufacturing establishments from noxious and injurious substances and conditions.
- To prevent and reduce traffic congestion.

- To promote the most desirable use of land for the most appropriate and beneficial development.
- To separate and cluster uses to their mutual advantage.
- To provide sufficient space at appropriate locations and ensure its availability for uses which benefit the Village as a whole.
- To promote and protect the stability and character of established development.
- To enhance the value of land and conserve the value of buildings.
- To enhance the physical environment of the Village and promote esthetics.
- To discourage development on steep slopes, areas of substantial rock outcrops, areas subject to flooding and areas adversely affecting natural lakes, ponds and streams.
- To allow development which can be properly served by public utilities and services, including but not limited to water, sewage disposal, drainage, fire protection, and roadway capacity.

Rockland County Stormwater Consortium: The Village is a member of the Rockland County Stormwater Consortium, which works with other municipalities and the county to keep waterways clear of pollutants. The Stormwater Consortium consists of those municipal separate stormwater system (MS4) municipalities within Rockland County who have joined together with Cornell Cooperative Extension for the purpose of implementing the federal and state requirements for stormwater management. MS4 municipalities are responsible for meeting the Phase II stormwater management requirements of the National Pollutant Discharge Elimination System (SPDES) regulations.

Operational and Administration

The Village has both a planning board and zoning board. Village staff attend classes, seminars and webinars that are offered by New York State and Rockland County.

Hazard Mitigation Programs: The Village has several programs in place. The Village DPW performs routine maintenance and O&R Utilities trims trees that are in wires.

Funding

Operating Budget: The Village has a capital improvements budget that includes budget for mitigation-related projects.

Grants: The Village received funding (\$160,000) from NYSDEC to decommission and remove a dam.

Education and Outreach

The Village maintains a website that provides links to the various municipal departments, local laws and planning documents, Village newsletter, news updates, and links to local, county, state and federal governments.

Rockland County provides the following services to its municipalities:

- County provides Towns and Villages palm-cards on winter storms; information regarding flooding; hurricane; high-winds, tornadoes via email and social media (Twitter and Facebook).
- Emergency Notification Systems: Rockland County has mapping services available to municipalities through their on-line web map portal. Disaster Land is a web-based emergency management software system; municipalities are granted access to it; flood inundation zones are incorporated into it so Emergency Coordinator from the municipality has access to it 24/7 on smart phone/laptop/desktop. The County utilizes NY-Alert and CodeRed (the backup to NY-Alert) for emergency notifications (all Towns and Villages have access to it). There is a mailbox for known inundation areas to target outreach as needed; and have license for FEMA's IPAWS to issue notifications.

9.8.6 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2010 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.

Table 9.8-11. Status of Previous Mitigation Actions

2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2018 HMP or Discontinue)	Describe Next Step
Brook Street culvert upgrade and replacement to increase capacity.	Engineering	No Progress	No funding secured	Include in 2018 HMP Update	Brook Street culvert upgrade and replacement to increase capacity.
Fourth Street bridge/repair deck replacement	Engineering	No Progress	Not responsibility of Village	Discontinue	The Village does not have jurisdiction over this bridge, it is the responsibility of the Town of Ramapo; therefore, it will not be included in the Plan Update.
Hillburn Dam remediation	Engineering	Engineering	100% Complete	Discontinue	This project has been completed; the dam has been removed
Ensure that local comprehensive plans incorporate natural disaster mitigation techniques through a courtesy review or draft plans by the County Planning Department.	CPG member; Village Trustee	In Progress	Master Plan is being prepared	Discontinue	
Expand and disseminate GIS and other hazard information on the internet.	CPG member; Village Trustee	Complete	The Village's website contains links to Rockland County sites	Discontinue	Project has been completed; this action will not be included in the Plan Update
Work with local municipalities to pursue the development of an Emergency Notification System call perimeter for high risk locations of natural hazards with delineable hazard areas. Rockland County staff will make aerial mapping available, along with GIS mapping for natural hazards that was completed as part of the hazard mitigation planning project. The County will also facilitate the utilization of the Emergency Notification System by municipalities.	CPG member; Village Trustee	Complete	<p>Rockland County has mapping services available to municipalities through their on-line web map portal.</p> <p>Disaster Land is a web-based emergency management software system; municipalities are granted access to it; flood inundation zones are incorporated into it so Emergency Coordinator from the municipality has access to it 24/7 on smart phone/laptop/desktop.</p> <p>The County utilizes NY-Alert and CodeRed (the backup to NY-Alert) for emergency notifications (all Towns and Villages have access to it; New Hempstead not using CodeRed). There is a mailbox for known inundation areas to target outreach as needed; and have license for FEMA's IPAWS to issue notifications.</p>	Discontinue	

2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2018 HMP or Discontinue)	Describe Next Step
Hold periodic workshops regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation.	CPG member; Village Trustee	In Progress		Include in 2018 HMP Update	
Continue to implement best management practices for floodplain areas.	CPG member; Village Trustee	In Progress		Include in 2018 HMP Update	
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.	CPG member; Village Trustee	In Progress		Include in 2018 HMP Update	There are no repetitively flooded properties identified by the NFIP at this time in the Village. The action will be updated to indicate flood-vulnerable properties.
Develop specific mitigation solutions for floodprone road systems (roads, bridges, intersections, drainage, etc.) under the leadership of County DPW.	CPG member; Village Trustee	In Progress		Include in 2018 HMP Update	
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.	CPG member; Village Trustee	No Progress		Include in 2018 HMP Update	
Review existing emergency response plans for enhancement opportunities: work with social support agencies, homeowners associations and general public to develop and implement monitoring and warning systems focused on vulnerable populations and provision of adequate shelter facilities.	CPG member; Village Trustee	In Progress		Include in 2018 HMP Update	
Public awareness program on hazards, prevention and mitigation: assist CPG Chairperson in maintenance of mitigation planning web presence; assist CPG Chairperson in preparation of annual hazards and mitigation planning fact sheet and its distribution; assist CPG chairperson in preparation of hazards survey; periodic discussion of hazard mitigation and the mitigation plan at other regular local meetings; use of annual flyers, newsletters,	RCOFES lead with direct participation and involvement from each jurisdiction's CPG member	In Progress	Links are listed on the Village website; information and fliers received are made available at Village Hall Rockland County provides Towns and Villages palm-cards on winter storms; information regarding flooding; hurricane; high-winds, tornadoes via email and social media (Twitter and Facebook).	Include in 2018 HMP Update	

2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2018 HMP or Discontinue)	Describe Next Step
advertisements, or radio/TV announcements, etc. at the discretion of the jurisdiction (incorporating as much free information as possible from the FEMA publications warehouse and other appropriate sources).					
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.	Each jurisdictional CPG member	In Progress	Master Plan is being completed	Discontinue	
Code enforcement: enforcement of NYS and local building codes	Each jurisdictional CPG member	Complete	NYS and local building codes are enforced by the Village's building/fire inspector	Discontinue	Project has been completed; this action will not be included in the Plan Update
Require staff involved in floodplain management and ordinance enforcement to become Certified Floodplain Managers (CFMs)	Village Board	No Progress		Include in 2018 HMP Update	
Join the Community Rating System (CRS)	Village Board	No Progress		Include in 2018 HMP Update	

Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

The Village of Hillburn has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2010 Plan:

- None identified

Proposed Hazard Mitigation Initiatives for the Plan Update

A mitigation action workshop in February 2017 which provided the following FEMA publications to use as a resource as part of the community's comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 'Selecting Appropriate Mitigation Measures for Floodprone Structures' (March 2007) and FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013).

Table 9.8-12 summarizes the comprehensive-range of specific mitigation initiatives the Village of Hillburn would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as 'High', 'Medium', or 'Low.' The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.8-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

Table 9.8-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
Hillburn-1 (old)	Consider joining the Community Rating System (CRS)	N/A	Flood	1, 2, 3, 7	Village	Medium	Low	Municipal budget	DOF	Medium	EAP	PI
Hillburn-2 (old)	Automated telephone notification system for Village residents	N/A	All	All	Village	High	Low to Medium	Grant funding where available	DOF	High	EAP	PI
Hillburn-3 (old)	Upgrade and replace the culvert on Brook Street to increase its capacity.	Existing	Flood, Severe Storm	1, 2, 4	Village	High	High	Grant funding where available	DOF	High	SIP	PP
Hillburn-4 (old)	Hold periodic workshops regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation.	N/A	All	1, 2, 3, 5, 7	Village	High	Low	Municipal Budget	DOF	High	EAP	PI
Hillburn-5 (old)	Continue to implement best management practices for floodplain areas.	N/A	Flood	1, 2, 5, 7	Village	High	Low	Municipal Budget	DOF	High	LPR, EAP	PR, PI
Hillburn-6 (old)	Identify and document flooded properties. Work with owners to explore mitigation opportunities for flooded properties, and if appropriate and feasible, carry out acquisition, relocation, elevation and floodproofing measures to protect these properties.	Existing	Flood	1, 2, 3, 5, 7	Village	High	Low	Municipal Budget	DOF	High	LPR, EAP	PR, PI
Hillburn-7 (old)	Develop specific mitigation solutions for floodprone road systems (roads, bridges, intersections, drainage, etc.) under the leadership of County DPW.	Existing	Severe Storm, Flood	1, 2, 5, 7	Village Trustee	Medium	Low	Municipal budget	DOF	Medium	LPR	PR
Hillburn-8 (old)	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.	Existing	All	1, 2, 5, 7	Village Trustee	Medium	Low	Municipal budget	DOF	Medium	LPR	PR

Table 9.8-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
Hillburn-9 (old)	Review existing emergency response plans for enhancement opportunities: work with social support agencies, homeowners associations and general public to develop and implement monitoring and warning systems focused on vulnerable populations and provision of adequate shelter facilities.	N/A	All	1, 2, 5, 7	Rockland County, Village	Medium	Low	Municipal budget	DOF	Medium	LPR	PR
Hillburn-10 (old)	Continue to develop and enhance the Village's public awareness program on hazards, prevention and mitigation.	N/A	All	All	Village	High	Low	Village Budget	DOF	High	EAP	PI
Hillburn-11 (old)	Require staff involved in floodplain management and ordinance enforcement to become Certified Floodplain Managers (CFMs)	N/A	Flood	1, 2, 3, 7	Village	Medium	Low	Municipal budget	DOF	Medium	LPR	PR
Hillburn-12	The St. Lawrence Center and O&R Hillburn Substation are located in the floodplain. The Village does not have jurisdiction over these facilities. The Village will work with the Town and County to notify the owners of their flood vulnerability identified during the Rockland County HMP update and NYS' requirement to protect to the 500-year flood or worst-case scenario. Potential projects may include the following and the owner(s) will need to determine the most cost effective and feasible action: <ul style="list-style-type: none"> • Elevate utilities/infrastructure • Dry floodproof and install a 	Existing	Flood	1, 2, 4, 6	Private Property Owners and Village support	High	Low	Municipal budget	Short	Medium	SIP	PP



Table 9.8-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	backup power supply/generator <ul style="list-style-type: none"> • Retrofit the structure with a sensor that would seal the well itself off from floodwaters, like a backflow preventer. • Add a backup power supply to make sure it works when the power’s out. • Relocate outside the floodplain 											
Hillburn-13	Protect the Fourth Street pump station by installing appropriate physical protective measures to mitigate flood future losses. The owner will determine the most cost-effective and feasible mitigation option on mitigating and assure that any mitigation addresses the 500-year flood event or "worst damage scenario". Mitigation options may include dry floodproofing, elevate infrastructure or relocate outside the floodplain.	Existing	Severe Storm, Flood	1, 2, 5	Village of Hillburn	High	High	Village and Grant funding where available	DOF	High	SIP	PP

Notes:

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

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

CAV Community Assistance Visit
 CRS Community Rating System
 DPW Department of Public Works
 FEMA Federal Emergency Management Agency
 FPA Floodplain Administrator
 HMA Hazard Mitigation Assistance
 N/A Not applicable
 NFIP National Flood Insurance Program

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program
 HMGP Hazard Mitigation Grant Program
 PDM Pre-Disaster Mitigation Grant Program
 RFC Repetitive Flood Claims Grant Program (discontinued in 2015)
 SRL Severe Repetitive Loss Grant Program (discontinued in 2015)

Timeline:

Short 1 to 5 years
 Long Term 5 years or greater
 OG On-going program
 DOF Depending on funding



OEM Office of Emergency Management

Costs:

Where actual project costs have been reasonably estimated:

- Low < \$10,000
- Medium \$10,000 to \$100,000
- High > \$100,000

Where actual project costs cannot reasonably be established at this time:

- Low Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
- Medium Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
- High Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

- Low= < \$10,000
- Medium \$10,000 to \$100,000
- High > \$100,000

Where numerical project benefits cannot reasonably be established at this time:

- Low Long-term benefits of the project are difficult to quantify in the short term.
- Medium Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.
- High Project will have an immediate impact on the reduction of risk exposure to life and property.

Mitigation Category:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

CRS Category:

- Preventative Measures (PR) - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- Natural Resource Protection (NR) - Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

Table 9.8-13. Summary of Prioritization of Actions

Mitigation Action / Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
Hillburn-1 (old)	Consider joining the Community Rating System (CRS)	1	1	1	1	0	0	1	0	1	1	1	0	0	0	8	Medium
Hillburn-2 (old)	Automated telephone notification system for Village residents	1	1	1	1	0	0	0	0	1	1	1	0	1	1	9	High
Hillburn-3 (old)	Upgrade and replace the culvert on Brook Street to increase its capacity.	1	1	1	1	0	0	0	0	1	1	1	0	1	1	9	High
Hillburn-4 (old)	Hold periodic workshops regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation.	1	1	1	1	0	0	1	0	1	1	1	0	1	0	9	High
Hillburn-5 (old)	Continue to implement best management practices for floodplain areas.	1	1	1	1	0	0	1	0	1	1	1	0	1	0	9	High
Hillburn-6 (old)	Identify and document flooded properties. Work with owners to explore mitigation opportunities for flooded properties, and if appropriate and feasible, carry out acquisition, relocation, elevation and floodproofing measures to protect these properties.	1	1	1	1	0	0	1	0	1	1	1	0	1	0	9	High
Hillburn-7 (old)	Develop specific mitigation solutions for floodprone road systems (roads, bridges, intersections, drainage, etc.) under the leadership of County DPW.	1	1	1	1	0	0	0	0	1	1	1	0	1	0	8	Medium
Hillburn-8 (old)	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	1	1	1	1	0	0	0	0	1	1	1	0	1	0	8	Medium

Table 9.8-13. Summary of Prioritization of Actions

Mitigation Action / Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
	natural hazards, and pursue potential mitigation opportunities to protect these sites as funding becomes available.																
Hillburn-9 (old)	Review existing emergency response plans for enhancement opportunities: work with social support agencies, homeowners associations and general public to develop and implement monitoring and warning systems focused on vulnerable populations and provision of adequate shelter facilities.	1	1	1	1	0	0	0	0	1	1	1	0	1	0	8	Medium
Hillburn-10 (old)	Continue to develop and enhance the Village's public awareness program on hazards, prevention and mitigation.	1	1	1	1	0	0	1	0	1	1	1	0	1	0	9	High
Hillburn-11 (old)	Require staff involved in floodplain management and ordinance enforcement to become Certified Floodplain Managers (CFMs)	1	1	1	1	0	0	0	0	0	1	1	0	1	0	7	Medium
Hillburn-12	The St. Lawrence Center and O&R Hillburn Substation are located in the floodplain. The Village does not have jurisdiction over these facilities. The Village will work with the Town and County to notify the owners of their flood vulnerability identified during the Rockland County HMP update and NYS' requirement to protect to the 500-year flood or worst-case scenario.	1	1	1	1	0	1	0	0	0	1	0	0	0	0	6	Medium



Table 9.8-13. Summary of Prioritization of Actions

Mitigation Action / Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low	
	<p>Potential projects may include the following and the owner(s) will need to determine the most cost effective and feasible action:</p> <ul style="list-style-type: none"> • Elevate utilities/infrastructure • Dry floodproof and install a backup power supply/generator • Retrofit the structure with a sensor that would seal the well itself off from floodwaters, like a backflow preventer. • Add a backup power supply to make sure it works when the power's out. • Relocate outside the floodplain 																	
Hillburn-13	<p>Protect the Fourth Street pump station by installing appropriate physical protective measures to mitigate flood future losses. The owner will determine the most cost-effective and feasible mitigation option on mitigating and assure that any mitigation addresses the 500-year flood event or "worst damage scenario". Mitigation options may include dry floodproofing, elevate infrastructure or relocate outside the floodplain.</p>	1	1	1	1	0	1	0	0	0	1	0	0	0	0	6	Medium	

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions.



9.8.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

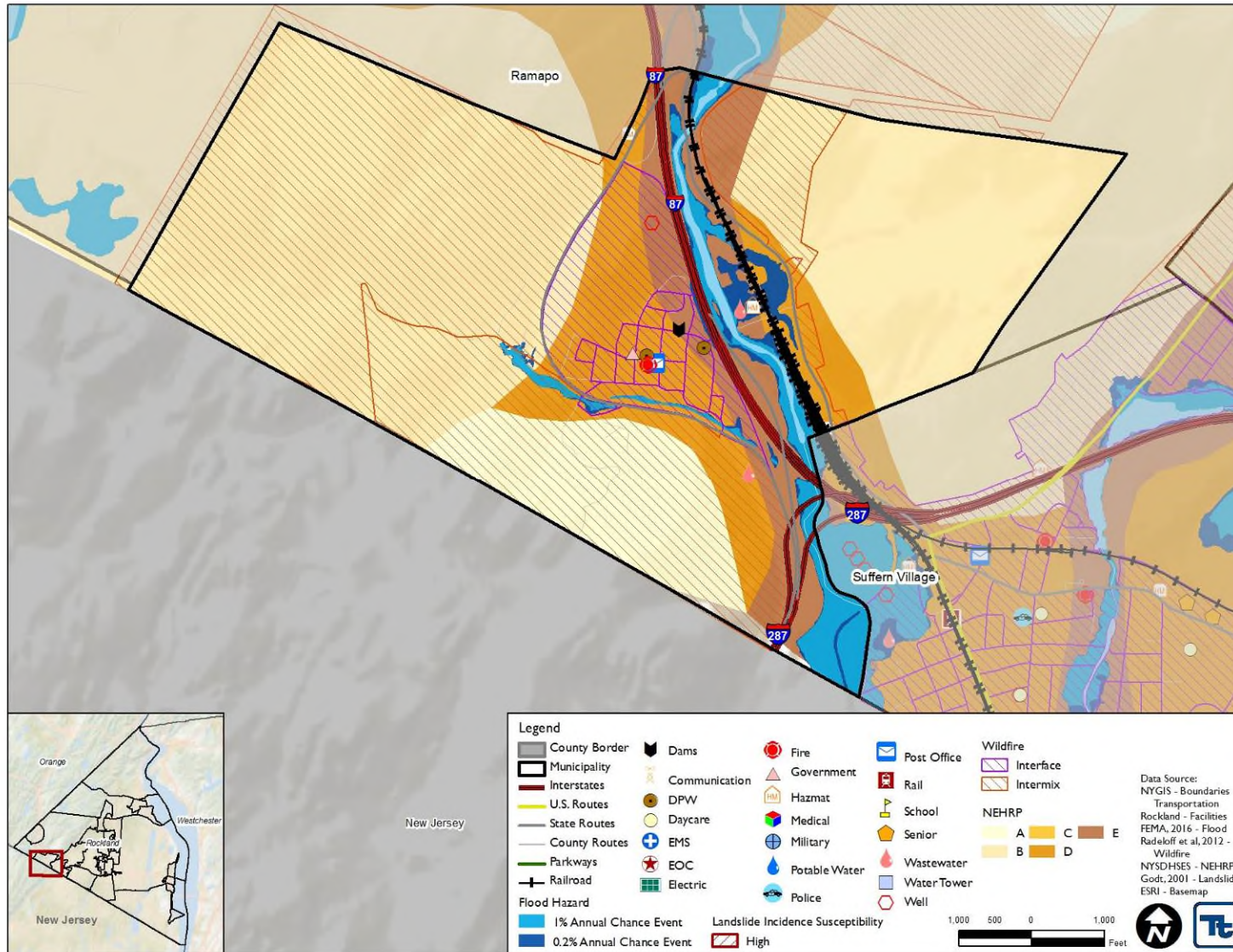
9.8.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Village of Hillburn that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Hillburn has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.8.9 Additional Comments

None at this time.

Figure 9.8-1. Village of Hillburn Hazard Area Extent and Location Map 1



Action Number: Hillburn-1 (old)
Mitigation Action Name: Consider joining the Community Rating System (CRS)

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	The Village is not in the CRS program
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Create municipal program to go above and beyond the requirements of NFIP – no flood insurance premium discounts
Action/Project Intended for Implementation	
Description of Selected Action/Project	Consider joining the Community Rating System (CRS)
Mitigation Action Type	EAP
Goals Met	1, 2, 3, 7
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Low
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village
Local Planning Mechanism	Hazard Mitigation, Floodplain Management
Potential Funding Sources	Municipal budget
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

Hillburn-1 (old)
Consider joining the Community Rating System (CRS)

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	0	
Legal	0	
Fiscal	1	Municipal budget
Environmental	0	
Social	1	Residents that have flood insurance would benefit from the village being in CRS – it would reduce flood insurance premiums
Administrative	1	
Multi-Hazard	1	Flood
Timeline	0	DOF
Agency Champion	0	
Other Community Objectives	0	
Total	8	
Priority (H/M/L)	Medium	

Action Number: Hillburn-2 (old)
Mitigation Action Name: Automated telephone notification system for Village residents

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Currently, there is no automated notification system for village residents
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Automated email system – not as fast at getting notifications to all residents
Action/Project Intended for Implementation	
Description of Selected Action/Project	Automated telephone notification system for Village residents
Mitigation Action Type	EAP
Goals Met	All
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	High
Estimated Cost	Low to Medium
Priority*	High
Plan for Implementation	
Responsible Organization	Village
Local Planning Mechanism	Hazard Mitigation, Emergency Management
Potential Funding Sources	Grant funding where available
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number: Hillburn-2 (old)
Mitigation Action Name: Automated telephone notification system for Village residents

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Provide a system to inform residents of emergencies
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	0	
Legal	0	
Fiscal	0	Need to seek grant funding
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	0	
Agency Champion	1	
Other Community Objectives	1	
Total	9	
Priority (H/M/L)	High	

Action Number: Hillburn-3 (old)
Mitigation Action Name: Upgrade and replace the culvert on Brook Street to increase its capacity.

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Storm
Specific problem being mitigated:	The culvert on Brook Street
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Move Brook Street and remove culvert – Not feasible
Action/Project Intended for Implementation	
Description of Selected Action/Project	Upgrade and replace the culvert on Brook Street to increase its capacity.
Mitigation Action Type	SIP
Goals Met	1, 2, 4
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Village
Local Planning Mechanism	Hazard Mitigation, Stormwater
Potential Funding Sources	Grant funding where available
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:

Hillburn-3 (old)

Mitigation Action Name:

Upgrade and replace the culvert on Brook Street to increase its capacity.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protect residents in the area from flooding impacts
Property Protection	1	Protect structures in the area from flooding impacts
Cost-Effectiveness	1	
Technical	1	
Political	0	
Legal	0	
Fiscal	0	Need to seek grant funding
Environmental	0	
Social	1	Residents that live in the area of Brook Street
Administrative	1	
Multi-Hazard	1	Severe Storm, Flooding
Timeline	0	
Agency Champion	1	
Other Community Objectives	1	
Total	9	
Priority (H/M/L)	High	

Action Number: Hillburn-4 (old)
Mitigation Action Name: Hold periodic workshops regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Current zoning and planning issues need to incorporate natural hazards and hazard mitigation
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Rely on outside groups to conduct public outreach – may not be sustainable or at high enough standards
Action/Project Intended for Implementation	
Description of Selected Action/Project	Hold periodic workshops regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation.
Mitigation Action Type	EAP
Goals Met	1, 2, 3, 5, 7
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	High
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Village
Local Planning Mechanism	Hazard Mitigation, Planning
Potential Funding Sources	Municipal Budget
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

Hillburn-4 (old)
Hold periodic workshops regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	0	
Legal	0	
Fiscal	1	Municipal Budget
Environmental	0	
Social	1	All residents of the Village
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	High	

Action Number: Hillburn-5 (old)
Mitigation Action Name: Continue to implement best management practices for floodplain areas.

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Best management practices need to stay up-to-date in order to ensure properties are protected in the floodplain areas
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Meet minimum standards for floodplain management and encourage residents to meet higher standards – Sporadic higher standards, not preferred
Action/Project Intended for Implementation	
Description of Selected Action/Project	Continue to implement best management practices for floodplain areas.
Mitigation Action Type	LPR, EAP
Goals Met	1, 2, 5, 7
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	High
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Village
Local Planning Mechanism	Hazard Mitigation, Floodplain Management
Potential Funding Sources	Municipal Budget
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

Hillburn-5 (old)
Continue to implement best management practices for floodplain areas.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	0	
Legal	0	
Fiscal	1	Municipal Budget
Environmental	0	
Social	1	All residents living in the floodplain
Administrative	1	
Multi-Hazard	1	Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	High	

Action Number: Hillburn-6 (old)
Mitigation Action Name: Identify and document flooded properties.

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Flood-vulnerable properties place an undue stress on the property owner and village and efforts should be made to mitigate them.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Identify areas where flood loss is likely – approach not as focused, may be more costly
Action/Project Intended for Implementation	
Description of Selected Action/Project	Identify and document flooded properties. Work with owners to explore mitigation opportunities for flooded properties, and if appropriate and feasible, carry out acquisition, relocation, elevation and floodproofing measures to protect these properties.
Mitigation Action Type	LPR, EAP
Goals Met	1, 2, 3, 5, 7
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	High
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Village and Private Property Owners
Local Planning Mechanism	Hazard Mitigation, Floodplain Management
Potential Funding Sources	Municipal Budget
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number: Hillburn-6 (old)
Mitigation Action Name: Identify and document flooded properties.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Reduce or eliminate damage to structures that are flood-vulnerable
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	0	
Legal	0	
Fiscal	1	Municipal Budget
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	High	

Action Number: Hillburn-7 (old)
Mitigation Action Name: Develop specific mitigation solutions for floodprone road systems (roads, bridges, intersections, drainage, etc.) under the leadership of County DPW.

Assessing the Risk	
Hazard(s) addressed:	Severe Storm, Flood
Specific problem being mitigated:	Floodprone roads can inhibit emergency response and evacuation during a flood.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Move floodprone road systems – not feasible
Action/Project Intended for Implementation	
Description of Selected Action/Project	Develop specific mitigation solutions for floodprone road systems (roads, bridges, intersections, drainage, etc.) under the leadership of County DPW.
Mitigation Action Type	LPR
Goals Met	1, 2, 5, 7
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	Medium
Estimated Cost	Low
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village Trustee
Local Planning Mechanism	Hazard Mitigation, Floodplain Management
Potential Funding Sources	Municipal budget
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

Hillburn-7 (old)
 Develop specific mitigation solutions for floodprone road systems (roads, bridges, intersections, drainage, etc.) under the leadership of County DPW.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Reduce or eliminate damage to the road systems in the Village
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	0	
Legal	0	
Fiscal	0	Municipal budget
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Storm, Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	8	
Priority (H/M/L)	Medium	

Action Number: Hillburn-8 (old)
Mitigation Action Name: Determine the year built and level of protection for critical emergency facilities and shelters

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Some facilities were built before code updates; therefore, they may be more susceptible to damage from a hazard event
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Build new critical emergency facilities and shelters to higher standards-cost
Action/Project Intended for Implementation	
Description of Selected Action/Project	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.
Mitigation Action Type	LPR
Goals Met	1, 2, 5, 7
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	Medium
Estimated Cost	Low
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village Trustee
Local Planning Mechanism	Hazard Mitigation, Floodplain Management, Emergency Management
Potential Funding Sources	Municipal budget
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

Hillburn-8 (old)
Determine the year built and level of protection for critical emergency facilities and shelters

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	0	
Legal	0	
Fiscal	0	Municipal budget
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	8	
Priority (H/M/L)	Medium	

Action Number:	Hillburn-9 (old)
Mitigation Action Name:	Review existing emergency response plans for enhancement opportunities: work with social support agencies, homeowners associations and general public

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Need to work with various agencies, associations and general public to implement monitoring and warning systems in the Village
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Rewrite all emergency plans - cost
Action/Project Intended for Implementation	
Description of Selected Action/Project	Review existing emergency response plans for enhancement opportunities: work with social support agencies, homeowners associations and general public to develop and implement monitoring and warning systems focused on vulnerable populations and provision of adequate shelter facilities.
Mitigation Action Type	LPR
Goals Met	1, 2, 5, 7
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Low
Priority*	Medium
Plan for Implementation	
Responsible Organization	Rockland County, Village
Local Planning Mechanism	Hazard Mitigation, Emergency Management
Potential Funding Sources	Municipal budget
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:

Hillburn-9 (old)

Mitigation Action Name:

Review existing emergency response plans for enhancement opportunities: work with social support agencies, homeowners associations and general public

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	0	
Legal	0	
Fiscal	0	Municipal budget
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	8	
Priority (H/M/L)	Medium	

Action Number:

Hillburn-10 (old)

Mitigation Action Name:

Continue to develop and enhance the Village’s public awareness program on hazards, prevention and mitigation.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Need to keep public awareness programs up-to-date
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Rely on outside groups to conduct all public outreach – may not be sustainable or at high enough standards
Action/Project Intended for Implementation	
Description of Selected Action/Project	Continue to develop and enhance the Village’s public awareness program on hazards, prevention and mitigation.
Mitigation Action Type	EAP
Goals Met	All
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	High
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Village
Local Planning Mechanism	Hazard Mitigation, Public Education
Potential Funding Sources	Village Budget
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number: Hillburn-10 (old)
Mitigation Action Name: Continue to develop and enhance the Village’s public awareness program on hazards, prevention and mitigation.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	0	
Legal	0	
Fiscal	1	Village Budget
Environmental	0	
Social	1	All residents of Village
Administrative	1	
Multi-Hazard	1	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	High	

Action Number: Hillburn-11 (old)
Mitigation Action Name: Require staff involved in floodplain management and ordinance enforcement to become Certified Floodplain Managers (CFMs)

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Floodplain management and ordinance enforcement staff are not Certified Floodplain Managers
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Have staff attend courses on floodplain management but not become CFM's – lack of recognition from national organization. CRS awards points for CFM's
Action/Project Intended for Implementation	
Description of Selected Action/Project	Require staff involved in floodplain management and ordinance enforcement to become Certified Floodplain Managers (CFMs)
Mitigation Action Type	LPR
Goals Met	1, 2, 3, 7
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Low
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village
Local Planning Mechanism	Hazard Mitigation, Floodplain Management
Potential Funding Sources	Municipal budget
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:

Hillburn-11 (old)

Mitigation Action Name:

Require staff involved in floodplain management and ordinance enforcement to become Certified Floodplain Managers (CFMs)

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	0	
Legal	0	
Fiscal	0	Municipal budget
Environmental	0	
Social	0	
Administrative	1	Village Floodplain Administrator
Multi-Hazard	1	Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	7	
Priority (H/M/L)	Medium	

Action Number:

Hillburn-12

Mitigation Action Name:

Critical Facilities located in the floodplain

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	The St. Lawrence Center and O&R Hillburn Substation are located in the floodplain.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Encourage outside agencies to provide support – Outside groups may not be able to committ to providing support Private property owners mitigate; potential options: <ul style="list-style-type: none"> • Elevate utilities/infrastructure • Dry floodproof and install a backup power supply/generator • Retrofit the structure with a sensor that would seal the well itself off from floodwaters, like a backflow preventer. • Add a backup power supply to make sure it works when the power’s out. • Relocate outside the floodplain
Action/Project Intended for Implementation	
Description of Selected Action/Project	The St. Lawrence Center and O&R Hillburn Substation are located in the floodplain. The Village does not have jurisdiction over these facilities. The Village will work with the Town and County to notify the owners of their flood vulnerability identified during the Rockland County HMP update and NYS' requirement to protect to the 500-year flood or worst-case scenario. Potential projects may include the following and the owner(s) will need to determine the most cost effective and feasible action: <ul style="list-style-type: none"> • Elevate utilities/infrastructure • Dry floodproof and install a backup power supply/generator • Retrofit the structure with a sensor that would seal the well itself off from floodwaters, like a backflow preventer. • Add a backup power supply to make sure it works when the power’s out. • Relocate outside the floodplain
Mitigation Action Type	SIP
Goals Met	1, 2, 4, 6
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	High
Estimated Cost	Low
Priority*	Medium
Plan for Implementation	
Responsible Organization	Private property owners with Village support
Local Planning Mechanism	Hazard Mitigation, Public Education
Potential Funding Sources	Municipal Budget
Timeline for Completion	Short Term

Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

Hillburn-12
Critical Facilities located in the floodplain

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Critical facility protection
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	0	
Legal	1	
Fiscal	0	Municipal Budget
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	Short Term
Agency Champion	0	
Other Community Objectives	0	
Total	6	
Priority (H/M/L)	Medium	

Action Number:

Hillburn-13

Mitigation Action Name:

Fourth Street pump station is located in the floodplain and vulnerable to flooding

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Fourth Street pump station is located in the floodplain and vulnerable to flooding
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Move Fourth Street Pump station out of the 500-year floodplain – not feasible Dry floodproofing Elevate structure
Action/Project Intended for Implementation	
Description of Selected Action/Project	Protect the Fourth Street pump station by installing appropriate physical protective measures to mitigate flood future losses. The owner will determine the most cost-effective and feasible mitigation option on mitigating and assure that any mitigation addresses the 500-year flood event or "worst damage scenario". Mitigation options may include dry floodproofing, elevate infrastructure or relocate outside the floodplain.
Mitigation Action Type	SIP
Goals Met	1, 2, 4, 6
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	High
Estimated Cost	Low
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village Board
Local Planning Mechanism	Hazard Mitigation, Floodplain Management, Public Education
Potential Funding Sources	Municipal Budget and grant funding where available
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

Hillburn-13
Fourth Street pump station is located in the floodplain and vulnerable to flooding

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	0	
Legal	1	
Fiscal	0	Municipal Budget
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	Short Term
Agency Champion	0	
Other Community Objectives	0	
Total	6	
Priority (H/M/L)	Medium	