

9.22 VILLAGE OF SUFFERN

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

9.22.1 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
Charles W. Sawicki, Director of Public Works csawicki@suffernvillage.com 845-357-2602	Joseph Hunt safetyjoe52@gmail.com 845-357-1617
NFIP Floodplain Administrator (FPA)	
Charles W. Sawicki, Director of Public Works csawicki@suffernvillage.com 845-357-2602	

9.22.2 Municipal Profile

The Village of Suffern is located along the southern border of the Town of Ramapo in Rockland County. It is approximately 2.1 square miles in size and bordered to the north by the Town of Ramapo and the Village of Montebello, to the south by New Jersey, to the east by the Village of Airmont and to the west by the Village of Hillburn. Both the Ramapo River and Mahwah River flow through the Village. The Ramapo River Watershed encompasses the entire Village. According to the 2010 Census, the Village’s population was 10,723.

The New York State Thruway (I-87) passes through the Village, as does I-287. The area is served by New Jersey Transit and Metro-North Railroad commuter lines which stop at the Suffern train station. Freight rail also passes through the Village.

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 9.22.8 of this annex which illustrates the hazard areas along with the location of potential new development.

Table 9.22-1. 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					
Brooker Engineering Office Building	Comm.	6 stories	74 Lafayette Avenue	NEHRP: D; WUI: Interface	Complete
Mountainview Estates	Comm.	2 stories	Pavilion Road	WUI: Interface	Complete
Known or Anticipated Development in the Next Five (5) Years					
Orange Avenue Apartment LLC	Comm.	5 stories	Orange Ave.	NEHRP: D; WUI: Interface	Under Construction

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

9.22.3 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 9.22-2. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	Rockland County Designated?	Summary of Damages/Losses
March 13-31, 2010	Severe Storm and Flooding DR-1899	Yes	The wastewater treatment plant was damaged as a result of this storm. The storm left vegetative debris and mud and rock deposits throughout the Village. Public assistance was requested from FEMA and NYSDHSES (over \$12,000 in labor [debris cleanup], equipment and direct administrative costs).
December 26-27, 2010	Severe Winter Storm DR-1957	Yes	The storm brought massive snow accumulation which required significant snow plowing and snow removal by the Village to ensure mobility of emergency vehicles. The Village requested public assistance from FEMA and NYSDHSES (over \$5,000 in overtime, equipment use and direct administrative costs).
August 28, 2011	Hurricane Irene DR-4020	Yes	The heavy rains caused the Mahwah and Ramapo Rivers to reach historic levels and flow into and beyond their floodplains. This resulted in significant damage to roads, homes, and businesses in the Village. A bridge washed out and the wastewater and water treatments plants were taken offline. The Village evacuated Squires Gates and adjacent areas. Four residential structures on Lonegran Drive were significantly damaged and demolished (homes were bought out). The wastewater treatment plant, water treatment facility, DPW fueling station and the South Street pump station all sustained damage. Police, fire and DPW all provided emergency protective services and had overtime costs.
October 29, 2012	Hurricane Sandy	Yes	High wind speeds impacted the Village, knocking down trees and powerlines. Many residents were without power. Downed trees damaged residential properties throughout the Village. Roofs were blown off and the wind compromised utilities and Village infrastructure. East Maple Avenue was closed. There was massive amounts of vegetative debris including very large trees that required removal and cleanup from the roadways and other areas of the Village. Public assistance was requested from FEMA and NYSDHSES.

Notes:

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

9.22.4 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 Suffern. 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 Suffern.

Table 9.22-3. 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: \$2,517,318 2,500-Year GBS: \$35,355,502	Occasional	32	High
Extreme Temperature	Damage estimate not available	Frequent	27	Medium
Flood	1% Annual Chance: \$87,329,000	Frequent	36	High
Landslide	RCV Exposed: \$0	Rare	6	Low
Severe Storm	100-Year MRP: \$767,490 500-year MRP: \$2,328,670 Annualized: \$37,405	Frequent	48	High
Winter Storm	1% GBS: \$12,198,380 5% GBS: \$60,991,900	Frequent	51	High
Wildfire	Estimated Value in the WUI: \$1,799,427,000	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 Suffern.

Table 9.22-4. 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)
Suffern, Village of	154	390	\$5,188,302	17	2	123

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 9.22-5. 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
Well #1	Well	X	X	-	-
Well #2	Well	X	X	-	-
Well #3	Well	X	X	-	-
Well #4	Well	X	X	-	-
O & R Suffern Gate Station - Gas	Hazmat		X		
Suffern Wastewater Treatment Plant	WWTP		X		

Source: Hazus-MH 3.2, Rockland County

Note: Due to the sensitive nature of the location of potable wells, a general listing is provided in the above table.

Other Vulnerabilities Identified

The municipality has identified the following vulnerabilities within their community:

- According to the 2014 Flood Insurance Study (FIS) for Rockland County, the Ramapo River flows through the Village and affects residential and commercial structures. Areas of the village located in the floodplain have experienced flooding in the past. The Mahwah River flows through lakes and between steep banks through most of the Village. The floodplain in the southern reach of the river has been partially filled in and developed extensively with single-family dwellings, which are subject to periodic flooding. Antrim and Montebello Creeks, located in the northeastern portion of the Village, flow through sparsely developed areas (FEMA FIS 2014).

New York Rising Community Reconstruction Program

Two communities in Rockland County were selected to participate in the statewide competitive program, New York Rising Community Reconstruction (NYRCR) Program. The Village of Suffern was allotted up to \$3 million in CDBG-DR funds for the implementation of eligible projects identified in the NYRCR plan. Projects addressing flooding vulnerabilities of infrastructure, homes, businesses, and the continuity of utilities in the Village of Suffern were identified.

The New York Rising Community Reconstruction Program has identified vulnerable areas, key projects, and initiatives in the Village of Suffern. Planning documents were finalized in December 2014 and are available at <http://stormrecovery.ny.gov/community-reconstruction-program>. Key projects and initiatives identified in these documents are included in the updated mitigation strategy (Section 9.22.6), and elsewhere within this annex as noted.

9.22.5 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 Suffern.

Table 9.22-6. 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	Yes	Local		
Capital Improvements Plan	Yes	Local	Finance Dept.	
Floodplain Management / Basin Plan	Yes	Local	DPW	
Stormwater Management Plan	No			
Open Space Plan	No			
Stream Corridor Management Plan	No			
Watershed Management or Protection Plan	No			
Economic Development Plan	No			
Comprehensive Emergency Management Plan	Yes	County & Local	Police Dept.	
Emergency Operation Plan	Yes	Local		
Post-Disaster Recovery Plan	No			
Transportation Plan	No			
Strategic Recovery Planning Report	No			
Other Plans:	No			
Regulatory Capability				
Building Code	Yes 1998	State & Local	Village	Chapter 96 – Building Construction and Fire Prevention
Zoning Ordinance	Yes 1993	Local	Zoning Board	Chapter 266 – Zoning
Subdivision Ordinance	Yes	Local	Village	Chapter 239 – Subdivision of Land (currently under review)
NFIP Flood Damage Prevention Ordinance	Yes 2013	Federal, State, Local	Director of Public Works	Chapter 141 – Flood Damage Prevention
NFIP: Cumulative Substantial Damages	No			

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.)
NFIP: Freeboard	Yes	State, Local	Director of Public Works	State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other construction types
Growth Management Ordinances	No			
Site Plan Review Requirements	Yes	Local	Planning Board	
Stormwater Management Ordinance	Yes	Local	DPW	Chapter 233 – Stormwater Management
Municipal Separate Storm Sewer System (MS4)	Yes	Local	DPW	Chapter 233 – 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 §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 Suffern.

Table 9.22-7. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning and Zoning Boards
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	Fire and Police Departments
Technical/Staffing Capability		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Planner Consultant
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	DPW, Director of Public Works
Planners or engineers with an understanding of natural hazards	Yes	
NFIP Floodplain Administrator (FPA)	Yes	DPW, Director of Public Works
Surveyor(s)	No	
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH)	No	

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
applications		
Scientist familiar with natural hazards	No	
Emergency Manager	Yes	Police Chief
Grant writer(s)	Yes	Consultant
Staff with expertise or training in benefit/cost analysis	Yes	DPW, Director of Public Works
Professionals trained in conducting damage assessments	Yes	Chief Building Inspector

Fiscal Capability

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

Table 9.22-8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
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 - Consolidated Local Street and Highway Improvement Program (CHIPs) through NYSDOT
Open Space Acquisition funding programs	No
Other	None

Community Classifications

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

Table 9.22-9. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No		
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes		
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
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 Suffern’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.22-10. 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)

Charles Sawicki, CFM, Director of Public Works

Flood Vulnerability Summary

The Village maintains lists/inventories of properties that have been damaged by floods. However, these lists do not identify property owners who are interested in mitigation. During recent flooding events (Floyd, Irene, Sandy), approximately 125 residential units were damaged. During Hurricane Irene, the Village made substantial damage estimates and four units were declared substantially damaged. There is an interest in mitigation (elevation or acquisition); however, the total number is unknown at the time of this plan update. Funding sources to complete these mitigation projects includes New York Rising funds.

Resources

The FPA is the sole person assuming the roles and responsibilities of floodplain administration for the Village of Suffern. Administration services provided by the FPA include permit review, inspections, and record keeping. At the time of this plan update, an educational and outreach program regarding flood hazards/risk and flood risk reduction to the community is being developed. The FPA indicated that funding is a barrier to running an effective floodplain management program within the Village. The FPA stated that he feels adequately supported and trained to fulfill the role as the Village's floodplain administrator but would attend continuing education and/or certification training on floodplain management if it were offered in the County.

Compliance History

The Village of Suffern is currently in good standing with the NFIP and the most recent compliance audit was conducted in August 2014.

Regulatory

The Village's flood damage prevention ordinances meets the minimum set by FEMA and New York State. There are additional ordinances, plans and programs in place that support floodplain management in the Village. This includes the planning and zoning boards considering efforts to reducing flood risk when reviewing variances.

The Village has considered joining CRS and has a meeting set for January 2017.

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

NY Rising Community Reconstruction Program: The NY Rising Community Reconstruction Program (NYRCR) was established by Governor Andrew Cuomo to provide additional rebuilding and revitalization assistance to communities severely damaged by Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. In Suffern, a seven-member Planning Committee has been appointed by the Governor's Office of Storm Recovery to develop an NYRCR Plan that will guide the spending of up to \$3 million of Community

Development Block Grant – Disaster Recovery (CDBG-DR) funding from the U.S. Department of Housing and Urban Development (HUD).

Regulatory and Enforcement

Flood Damage Prevention Ordinance, Chapter 141: The purpose of the ordinance is to promote 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 objectives of this chapter are to:

- Protect human life and health;
- Minimize expenditure of public money for costly flood-control projects;
- Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- Minimize prolonged business interruptions;
- Minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood-blight areas;
- Provide that developers are notified that property is in an area of special flood hazard; and
- Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

The Director of Public Works is appointed local administrator to administer and implement the flood damage prevention ordinance by granting or denying floodplain development permits in accordance with its provisions.

Stormwater Management, Chapter 233: The purpose of this code is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within the Village of Suffern. This code seeks to meet those purposes by achieving the following objectives:

- Meet the requirements of minimum measures 4 and 5 of the NYS Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s), Permit No. GP-02-02 or as amended or revised;
- Require land development activities to conform to the substantive requirements of the NYSDEC SPDES General Permit for Construction Activities GP-02-01 or as amended or revised;
- Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and streambank erosion and maintain the integrity of stream channels;

- Minimize increases in pollution caused by stormwater runoff from land development activities which would otherwise degrade local water quality;
- Minimize the total annual volume of stormwater runoff which flows from any specific site during and following development to the maximum extent practicable: and
- Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management practices and to ensure that these management practices are properly maintained and eliminate threats to public safety.

Subdivision of Land, Chapter 239: The Subdivision of Land Regulations are currently being reviewed for possible revision and updating.

Zoning, Chapter 266: The Zoning law promotes the following:

- To guide the future growth and development of the Village of Suffern in accordance with a well-considered plan, which plan is embodied in this Zoning Law.
- To regulate and limit the height, bulk and location of buildings hereafter erected, to regulate and determine the area of yards, courts and other open space and to regulate the density of population in any given area and, for said purposes, to divide the Village into zoning districts. These regulations are uniform for each class of buildings throughout any district, but the regulations in each district differ from those in other districts. These regulations are designed to secure safety from fire, flood and other dangers and to promote the public health and welfare, including, so far as conditions permit, provision for adequate light, air, convenience of access and the accommodation of solar energy systems, and are made with reasonable regard to the character of buildings erected in each district, the value of land and the use to which it may be put, to the end that these regulations are designed to promote public health, safety and welfare and the most desirable use for which the land of each district may be adapted and are intended to conserve the value of buildings and enhance the value of land and the quality of life for our residents throughout the Village.
- To regulate and restrict the location of trades and industries and the location of buildings designed for specified uses and, for said purposes, to divide the Village into zoning districts and to prescribe for each such district the trades and industries that shall be excluded or subjected to special regulation and the uses for which buildings may not be erected or altered. This Zoning Law is designed to promote the public health, safety and general welfare and is made with reasonable consideration, among other things, to the character of the zoning district, its peculiar suitability for particular uses, the conservation of property values and the direction of building development, in accord with a well-considered plan.
- To carry out the Comprehensive Plan as adopted or amended by the Planning Board from time to time, which Plan constitutes the basic long-range guide to the Village's overall and use and development policies, and which Plan, as it exists or may in the future be amended, is to be given conscientious consideration whenever amendments to this Zoning Law are proposed.
- To protect the character and the social and economic stability of and to encourage the orderly and beneficial development of the Village and all of its neighborhoods.
- To bring about the gradual conformity of the use of land with the well-considered plan as set forth in this Zoning Law and to minimize conflicts among the uses of land.
- To promote the most beneficial relation between the use of land and the circulation of traffic throughout the Village, having particular regard to the avoidance of congestion in the streets and the provision of safe and convenient vehicular and pedestrian traffic movements appropriate to various uses of land throughout the Village.
- To provide a guide for public policy and action in the efficient provision of public facilities and services and for private enterprise in building development, investment and other economic activity relating to uses of land throughout the Village.
- To limit development to that which will not exceed the capacity of existing and programmed public facilities and services.

- To avoid hazardous conditions and excessive damage resulting from stormwater runoff and flooding, and to encourage the appropriate use and sound management of natural resources throughout the Village.
- To preserve the natural beauty of the Village; to protect the Village against unsightly, obtrusive and obnoxious land uses and operations; to enhance the aesthetic aspect of the natural and man-made elements of the Village; and to ensure appropriate development with regard to those elements.
- To maintain and enhance the quality of life in the older residential areas of the Village of Suffern and preserve the Village as a community where citizens of all racial, religious and economic backgrounds can live and raise their families in stable, well-kept and safe neighborhoods.
- To create a hospitable climate for the pursuit of happiness.
- To remove to the extent practicable, obstacles to the pursuit of happiness.
- To provide more extensive review of properties with sensitive environmental features in order to avoid adverse impacts to other properties; to encourage the use of cluster technique on these properties to further reduce potential adverse environmental impacts.

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

Village Boards: The Village has a planning board, zoning board of appeals, board of ethics, and sewer rent appeals board.

Funding

Operating Budget: The Village budget contains line items for street maintenance and snow removal.

Capital Improvement Plan: The Village is in the process of establishing a formal policy and multi-year capital improvement plan for capital projects. Capital projects account for the acquisition of long-lived, expensive assets such as buildings, facilities, major pieces of equipment and vehicles, and infrastructure (roads, sidewalks, water and sewer systems, etc.). The capital improvement plan will provide for the planned and orderly acquisition and replacement of capital assets over time, and the financing of such assets with a planned mix of current funds, debt and grants in aid.

Education and Outreach

Village Website: 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. Additionally, the Village provides flood awareness safety tips, high wind safety tips and winter safety tips to its residents.

Stormwater Education Program: Cornell University Cooperative Extension (CCE) Rockland County provides each MS4 community with education, outreach, and involvement in order to satisfy the NYSDEC Stormwater Phase II Regulations. CCE provides educational outreach to the Village by focusing on the Village's impact on stormwater through best management practices; proper landscape and facility maintenance; pollution prevention for businesses; proper disposal of trash and hazardous waste; water conservation; and low-impact development. This outreach is done by workshops, news articles, public service announcements, information center, CCE's website, monthly visits, and site visits.

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.

9.22.6 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 9.22-11. Status of Previous Mitigation Actions

Action Number	2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2018 HMP or Discontinue)	Describe Next Step 1. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
	Raising well houses	Public Works	In Progress	50% complete; funded through the local budget and grant	Include in the 2018 HMP	One well house has been raised; a second is awaiting funding
	Downtown business district and ballfield drainage and flood prevention improvements	Public Works	No Progress	No funding secured	Include in the 2018 HMP	Underground detention and incorporate infrastructure
	Bank stabilization/road improvements to Memorial Drive with dredging of Lake Antrim	Public Works	No Progress	0% complete	Discontinue	Large project with no possible funding
	Lonegran Drive drainage improvements and floodwall	Public Works	No Progress	No funding secured	Include in the 2018 HMP	Lonegran Drive drainage improvements and floodwall
1.B	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	Rockland County Planning Department reviews all Comprehensive Plans; would like to integrate mitigation into future comprehensive plan updates.	Include in 2018 HMP	Work with municipalities to integrate hazard mitigation and hazard areas into local comprehensive plans; a courtesy review of draft plans by the County Planning Department.
2.A	Expand and disseminate GIS and other hazard information on the internet.	CPG member; Village Trustee	In Progress	Rockland County has expanded its GIS services; flood inundation zones are on the map web portal and the Towns have access to the portal and this data. The County anticipates continual updates of data being collected and accessed by the Towns (e.g., dam inundation areas). Interfacing with the Stormwater Consortium of Rockland County and the Rockland County Planning Department.	Include in 2018 HMP	Continue working with the Stormwater Consortium of Rockland County and the County Planning Department to expand and disseminate GIS and other hazard information on the internet.
	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	CPG member; Village Trustee	90% Complete	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; Towns are granted access to it; flood inundation zones are incorporated into it so	Include in 2018 HMP	Working with Rockland County, complete the development of an Emergency Notification System for the Village.

Action Number	2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2018 HMP or Discontinue)	Describe Next Step 1. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
	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.			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; 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.		
	Hold periodic workshops regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation.	CPG member; Village Trustee	In Progress	Funded through local budget	Include in the 2018 HMP	Hold periodic workshops regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation.
4.F	Continue to implement best management practices for floodplain areas.	CPG member; Village Trustee	In Progress	Funded through local budget	Include in the 2018 HMP	Continue to implement best management practices for floodplain areas.
4.G	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 flood proofing measures to protect these properties.	CPG member; Village Trustee	In Progress	NY Rising residential unit buyout	Include in the 2018 HMP	
4.J	Develop specific mitigation solutions for flood prone road systems (roads, bridges, intersections, drainage, etc.) under the leadership of County DPW.	CPG member; Village Trustee	No Progress	Bridge replacement projects are County projects	Discontinue	Bridge replacement projects are County projects
13.A	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	Funded through local budget	Include in the 2018 HMP	Work with Orange & Rockland utility company to identify critical facilities.

Action Number	2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2018 HMP or Discontinue)	Describe Next Step 1. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
11.B	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	Rockland County has developed an access and functional-needs registry since 2010; facilities and residents can go on-line and notify of their existence. The Village does not have access to this system. The Village is currently placing information on the municipal website and utilizing messaging system to inform residents; 50% complete	Include in 2018 HMP	Work with Rockland County to obtain access to the functional-needs registry and enhance emergency response plans for the Village. Continue to enhance municipal website to provide monitoring and warning systems for the community.
	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, 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).	RCOFES lead with direct participation and involvement from each jurisdiction's CPG member	In Progress	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).	Discontinue	This is a current capability of Rockland County Office of Fire and Emergency Service.
	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	SEQRA review is conducted for specific-projects which takes into account hazards/problems. Rockland County Planning Department provides recommendations.	Include in 2018 HMP	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.
	Code enforcement: enforcement of NYS and local building codes	Each jurisdictional CPG member	Complete		Discontinue	This is an ongoing capability for the Village.



Action Number	2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGF grant, local budget)?	Next Step (Include in 2018 HMP or Discontinue)	Describe Next Step 1. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
	Update/revise floodplain management ordinance to comply with latest FEMA regulations	Public Works	Complete		Discontinue	
	Designate/install a specific person to be the Village Floodplain Administrator	Public Works	Complete	The Director of Public Works is the floodplain administrator and is a Certified Floodplain Manager	Discontinue	
	Add/train sufficient members of staff to adequately enforce NFIP regulations/floodplain management ordinances	Public Works	Complete		Discontinue	
	Update/review floodplain management ordinances to be consistent with potential future new FIRMs	Public Works	Complete	Local Law accepting revised FIRMs; 100% complete	Discontinue	
	Require staff involved in floodplain management and ordinance enforcement to become Certified Floodplain Managers (CFMs)	Public Works	Complete	Director of Public Works has become a CFM; 100% complete	Discontinue	
	Join the Community Rating System (CRS)	Public Works	In Progress	Received "Letter of Good Standing" from FEMA; CRS meeting scheduled for January 2017	Include in 2018 HMP	Continue working towards joining CRS

Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

The Village of Suffern 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:

- The Village completed a NY Rising Community Reconstruction plan and received \$3 million in Community Development Block Grant (CDBG) funding to implement identified projects in the plan.

Proposed Hazard Mitigation Initiatives for the Plan Update

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

Table 9.22-12 summarizes the comprehensive-range of specific mitigation initiatives the Village of Suffern 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 9.22-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

Table 9.22-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
V. Suffern - 1 (old)	Develop a comprehensive Village-wide education and outreach program for storm preparation, response and recovery.	N/A	All Hazards	All	Village, Emergency Services (police, fire)	High	Medium - \$20,000	NYSDHSES & Village	DOF	Medium	EAP	PI, ES
V. Suffern - 2 (old)	Upgrade the Village's NIXLE system to notify residents and businesses during Village-wide emergencies. Update the Village's Emergency Operations Plan to comply with the National Incident Management System (NIMS).	N/A	All Hazards	All	Village, Emergency Services (police, fire), Rockland County	Medium	Medium - <\$50,000	NYSDHSES & Village	DOF	Medium	EAP, LPR	PR, PI, ES
V. Suffern - 3	Purchase and install signage in commuter lots (including Lots A, B, F, and Lake Antrim / Memorial Pool parking) to warn about flooding risk to cars and help educate residents and commuters about the risks of flooding in the area.	N/A	Severe Storm, Flood	1, 2, 3, 5	Village, Emergency Services (police, fire), DPW	Medium	Medium - <\$50,000	NYSDHSES & Village	DOF	Medium	EAP	PI, ES
V. Suffern - 4	Develop a Community Emergency Response Team (CERT) to educate people about disaster preparedness and train citizen volunteers to assist their community when professional responders are not immediately available to help.	N/A	All	1, 2, 3, 4, 5	Village, Emergency Services (police, fire), Rockland County	Medium	Medium - <\$50,000	NYSDHSES & Village	DOF	Medium	EAP	PI, ES
V. Suffern - 5	Develop and maintain a volunteer roster to help homeowners and businesses that may need assistance in moving valuable resources out of harm's way before predicted storms move into the region and update the Village's Emergency Operations Plan.	N/A	All	1, 2, 3, 4, 5	Village, Emergency Services (police, fire)	Medium	Medium - <\$50,000	Village	DOF	Medium	EAP	PI, ES
V. Suffern - 6	Develop emergency kits, purchase materials to accommodate pets, and install	N/A	All	1, 2, 3	Village, Emergency Services	High	Medium - <\$50,000	NYSDHSES & Village	DOF	High	SIP	PP, ES

Table 9.22-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	kitchen equipment, where needed, at shelters in the Village.				(police, fire)							
V. Suffern - 7	Establish a Mahwah River Watershed Management Group that will collectively address development pressures, stormwater runoff issues and flood control mitigation projects at a watershed (regional) scale. Coordination with the Rockland-Bergen Bi-state River Commission will be part of the group's tasks.	N/A	All	All	Village, Rockland County	Medium	Medium - <\$50,000	NYSDHSES & Village	DOF	Medium	EAP	NR, PI
V. Suffern - 8 (old 4.G)	Provide support to the Village to explore various buyout and relocation program opportunities, identify eligible properties, and administer the buyout program, and prepare an economic development plan to offset reduction in tax revenues resulting from a buyout.	Existing	Flood	1, 2, 5, 6, 7	Village of Suffern, FEMA	Medium	Medium	NYRCR	DOF	High	EAP	PI, ES
V. Suffern - 9 (old 4.G)	Encourage homeowners in areas susceptible to flooding to move utility and mechanicals from basements to upper floors. Hire an architect to develop schematic plan options for raised utility rooms, facilitate the use of preapproved plans through the approval process for homeowners and help identify funding sources for the retrofit of existing homes.	Existing	Flood	1, 2, 3, 4, 7	Village of Suffern, FEMA	Medium	Medium	NYSDHSES & Village	DOF	Medium	EAP	PI
V. Suffern - 10	Inventory of existing stormwater management infrastructure	Existing	All	2, 5	Village of Suffern, NYSDOT, U.S. Federal Highway Administration	Medium	High - \$225,000	NYSDHSES & Village	DOF	Medium	EAP	PI

Table 9.22-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
V. Suffern - 11	Conduct a feasibility study to determine appropriate locations to implement green infrastructure practices and stormwater storage systems throughout Suffern	N/A	All	2, 4, 6	Village of Suffern, NYSDEC	Medium	Medium to High	NYSDEC & Village	DOF	Medium	NSP, EAP	PI, NR
V. Suffern - 12 (old)	Conduct a diagnostic review of the existing Village zoning code and other ordinances and provide recommendations to maximize flood protection and stormwater management, promote green infrastructure practices, and protect surface water resources and flood plains.	N/A	Severe Storm, Flood	1, 2, 6, 7	Village of Suffern	Medium	Medium - <\$50,000	Village	DOF	Medium	LPR	PR
V. Suffern - 13	Provide permanent emergency power generators at the DPW Garage to maintain operation of the fuel pumps and at the South Street Pump Station to allow for uninterrupted service of the facility.	Existing	All	1, 2, 5	Village of Suffern, DPW	High	Medium to High	NYRCR	Short Term / DOF	High	SIP	ES
V. Suffern - 14	Provide access to the West Ward by way of an at-grade Emergency Railroad Crossing over the NJ Transit Commuter Rail Line.	N/A	All	1, 2, 5	Village of Suffern, NJ Transit, NYSDOT, U.S. Federal Highway Administration	High	High - \$250,000	NYRCR	DOF	High	SIP	ES
V. Suffern - 15	Install drainage improvements at the Chestnut Street underpass, along Orange Ave and along US Route 202 to better protect these transportation assets and to ensure that emergency services have access to these areas.	New and Existing	All	1, 2, 4, 5	Village of Suffern, NYSDOT, NYSDEC, U.S. Federal Highway Administration, USACE	High	High	NYSDHSES & Village	DOF	High	SIP	NR, ES
V. Suffern - 16	Protect the wastewater treatment plant, owned by the Village, and related facilities to	Existing	Severe Storm, Flood	1, 2, 5	Village of Suffern, NYS and/or	High	High	NYRCR	DOF	High	SIP	PP

Table 9.22-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	the 500-year flood or worst-case scenario. The Village will determine feasible and cost-effective mitigation actions to implement which may include elevating critical mechanicals, floodproofing entries, installation of flood walls, and relocating the facility.				Rockland County Dept. of Health							
V. Suffern – 17	Protect the water treatment plant, owned by the Village, and related facilities, including wells to the 500-year flood or worst-case scenario. The Village will determine feasible and cost-effective mitigation actions to implement which may include elevating critical mechanicals, floodproofing entries, installation of flood walls, and relocating the facility.	Existing	Severe Storm, Flood	1, 2, 5	Village of Suffern, NYS and/or Rockland County Dept. of Health	High	High	NYRCR & Village	DOF	High	SIP	PP
V. Suffern – 18	Research options and purchase portable flood barrier walls for protection of Village facilities.	N/A	Flood	1, 2, 5	Village DPW	Medium	Medium to High	NYSDHSES & Village	DOF	Medium	EAP	PI
V. Suffern – 19	Conduct a comprehensive evaluation of the Mahwah River Watershed in conjunction with the Ramapo River Watershed to identify mitigation goals and associated performance metrics, assess existing conditions with respect to erosion and deposition patterns, identify local and watershed-scale stressors, understand patterns of channel evolution, and make recommendations regarding flood mitigation.	N/A	All	All	Village of Suffern	High	High	NYSDHSES & Village	Short Term / DOF	High	NSP, EAP	PI, NR
V. Suffern – 20	Coordinate between the Village, County, and State to develop an environmentally sensitive	N/A	All	All	Village of Suffern, Rockland	Medium	High	NYSDEC & Village	DOF	Medium	LPR, NSP, EAP	PR, PI, NR



Table 9.22-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	program to (1) clear the channels of the Mahwah and Ramapo Rivers by removing debris and detritus from their bed and banks as well as from the shores of Lake Antrim; (2) develop a program for the ongoing maintenance of these the rivers.				County, NYS DEC							
V. Suffern – 21	Restore Lake Antrim by designing and installing improvements to the surrounding bank and floodplain.	N/A	Flood, Severe Storm	2, 4	Village of Suffern, Rockland County, NYS DEC	High	Medium to High	NYSDHSES & Village	DOF	Medium	NSP	PP, NR
V. Suffern – 22	Wastewater Treatment Plant – build a small space on the roof of the sludge building to house the motor control center. This will ensure its continued operation in the event of a flood. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario".	Existing	Flood	2, 5	DPW	High	High	NYRCR	DOF	High	SIP	PP
V. Suffern – 23	Water Supply Wells (all in Village that are located in floodplain) – raise the roof of the building to protect the critical equipment inside which can be mounted above the design flood elevation. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario".	Existing	Flood	2, 5	DPW	High	High	NYRCR, Federal Grants	DOF	High	SIP	PP
V. Suffern – 24	South Street Pump Station – replace existing pumps with dry pit submersible pumps and build a raised exterior platform for a new emergency generator. This pump serves the entire village. Assure that any mitigation addresses the 500-	Existing	Flood	2, 5	DPW	High	High	NYSDFC & Village	DOF	High	SIP	PP



Table 9.22-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	year flood event or "worst damage scenario".											
V. Suffern – 25	DPW Garage – upgrade electrical services and a raised electrical panel above the design flood elevation and install a larger generator. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario".	Existing	Flood	2, 5	DPW	High	High	NYRCR	DOF	High	SIP	PP
V. Suffern – 26 (old)	Identify different options to improve drainage and flood prevention in the areas of Lonegran Drive, downtown business district, and ballfield.	Existing	Flood	1, 2, 5	DPW	Medium	Medium to High	Grant funding where applicable	Short Term / DOF	Medium	LPR, EAP	PP
V. Suffern – 27 (old 1.B)	When updating the Village Comprehensive Plan, ensure that hazard mitigation and hazard areas are incorporated.	N/A	All	All	Village	High	Low	Municipal Budget	Short Term (next comprehensive plan update)	High	LPR	PI
V. Suffern – 28 (old)	Continue working towards joining CRS.	New and Existing	Flood	All	Village	High	Low	Municipal Budget	Short Term	High	LPR	PI
V. Suffern- 29	Notify and provided needed support to the below facility manager/operator to evaluate the Village of Suffern’s flood vulnerability and determine what mitigation options are needed, if any. Assure that any mitigation addresses the 500-year flood event or “worst damage scenario” <ul style="list-style-type: none"> O&R Suffern Gate Station – Gas (hazmat) 	Existing	Flood	1, 2, 4, 6	Village Board	High	Low	Municipal budget	Short	Medium	SIP	PP
V. Suffern-	Work with Rockland County to obtain access to the functional-	N/A	All	1, 2, 5, 7	Rockland County,	Medium	Low	Municipal budget	DOF	Medium	LPR	PR

Table 9.22-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
30 (old 11.B)	needs registry and enhance emergency response plans for the Village.				Village							
V. Suffern-31 (old 2.A)	Continue working with the Stormwater Consortium of Rockland County and the County Planning Department to expand and disseminate GIS and other hazard information on the internet.	N/A	All	1, 2, 3, 5	Village Trustee	Medium	Low	Municipal Budget	DOF	Medium	LPR, EAP	PI, PR

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
 OEM Office of Emergency Management

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

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

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



Costs:

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:

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 9.22-13. 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
V. Suffern - 1	Develop a comprehensive Village-wide education and outreach program for storm preparation, response and recovery.	1	1	1	1	1	0	0	0	1	1	1	0	1	0	9	Medium
V. Suffern - 2	Upgrade the Village's NIXLE system to notify residents and businesses during Village-wide emergencies. Update the Village's Emergency Operations Plan to comply with the National Incident Management System (NIMS).	1	1	1	0	0	0	0	0	1	1	1	0	1	0	7	Medium
V. Suffern - 3	Purchase and install signage in commuter lots (including Lots A, B, F, and Lake Antrim / Memorial Pool parking)	1	1	1	1	0	0	0	0	0	1	1	0	1	0	7	Medium
V. Suffern - 4	Develop a Community Emergency Response Team (CERT)	1	1	1	1	0	1	0	0	1	1	1	0	1	0	9	Medium
V. Suffern - 5	Develop and maintain a volunteer roster to help homeowners and businesses that may need assistance in moving valuable resources out of harm's way before predicted storms move into the region and update the Village's Emergency Operations Plan.	1	1	1	1	0	0	1	0	1	1	1	0	1	0	9	Medium
V. Suffern - 6	Develop emergency kits, purchase materials to accommodate pets, and install kitchen equipment, where needed, at shelters in the Village.	1	1	1	1	0	0	0	0	1	1	1	0	1	1	9	High
V. Suffern - 7	Establish a Mahwah River Watershed Management Group	1	1	1	0	0	0	1	1	1	1	0	0	1	1	9	Medium

Table 9.22-13. 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
V. Suffern - 8	Provide support to the Village to explore various buyout and relocation program opportunities, identify eligible properties, and administer the buyout program, and prepare an economic development plan to offset reduction in tax revenues resulting from a buyout.	1	1	1	1	1	0	1	0	1	1	0	0	1	1	10	High
V. Suffern - 9	Encourage homeowners in areas susceptible to flooding to move utility and mechanicals from basements to upper floors.	1	1	1	1	0	0	1	0	1	1	0	0	1	0	8	Medium
V. Suffern - 10	Inventory of existing stormwater management infrastructure	1	1	1	1	0	0	1	0	0	1	0	0	1	0	7	Medium
V. Suffern - 11	Conduct a feasibility study to determine appropriate locations to implement green infrastructure practices and stormwater storage systems throughout Suffern	1	1	1	1	0	0	1	1	0	1	1	0	1	0	9	Medium
V. Suffern - 12	Conduct a diagnostic review of the existing Village zoning code and other ordinances	1	1	1	1	0	1	1	0	0	1	1	0	0	0	8	Medium
V. Suffern - 13	Provide permanent emergency power generators at the DPW Garage	1	1	1	1	1	0	0	0	1	1	1	0	1	1	10	High
V. Suffern - 14	Provide access to the West Ward by way of an at-grade Emergency Railroad Crossing over the NJ Transit Commuter Rail Line.	1	1	1	1	1	0	0	0	1	1	1	0	1	1	10	High
V. Suffern - 15	Install drainage improvements at the Chestnut Street underpass, along Orange Ave and along US	1	1	1	1	1	0	0	0	1	1	1	0	1	1	10	High

Table 9.22-13. 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
V. Suffern - 16	Route 202 Protect the wastewater treatment plant, owned by the Village, and related facilities to the 500-year flood or worst-case scenario. The Village will determine feasible and cost-effective mitigation actions to implement which may include elevating critical mechanicals, floodproofing entries, installation of flood walls, and relocating the facility.	1	1	1	1	1	0	0	0	1	1	1	0	1	1	10	High
V. Suffern - 17	Protect the water treatment plant, owned by the Village, and related facilities, including wells to the 500-year flood or worst-case scenario. The Village will determine feasible and cost-effective mitigation actions to implement which may include elevating critical mechanicals, floodproofing entries, installation of flood walls, and relocating the facility.	1	1	1	1	1	0	0	0	1	1	1	0	1	1	10	High
V. Suffern - 18	Research options and purchase portable flood barrier walls for protection of Village facilities.	1	1	1	1	0	0	0	0	0	1	0	0	1	0	6	Medium
V. Suffern - 19	Conduct a comprehensive evaluation of the Mahwah River Watershed in conjunction with the Ramapo River Watershed	1	1	1	1	0	0	0	1	1	1	1	0	1	1	10	High
V. Suffern - 20	Coordinate between the Village, County, and State to	1	1	1	1	0	0	0	1	1	1	1	0	1	0	9	Medium

Table 9.22-13. 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
	develop an environmentally sensitive program																
V. Suffern - 21	Restore Lake Antrim	1	1	1	1	0	0	0	1	1	1	1	0	1	0	9	Medium
V. Suffern - 22	Wastewater Treatment Plant	1	1	1	1	1	0	0	0	1	1	1	0	1	1	10	High
V. Suffern - 23	Water Supply Wells (all in Village)	1	1	1	1	1	0	0	0	1	1	1	0	1	1	10	High
V. Suffern - 24	South Street Pump Station	1	1	1	1	1	0	0	0	1	1	1	0	1	1	10	High
V. Suffern - 25	DPW Garage	1	1	1	1	1	0	0	0	1	1	1	0	1	1	10	High
V. Suffern - 26	Identify different options to improve drainage and flood prevention in the areas of Lonegran Drive, downtown business district, and ballfield.	1	1	1	1	0	0	0	1	1	1	1	0	1	0	9	Medium
V. Suffern - 27	When updating the Village Comprehensive Plan, ensure that hazard mitigation and hazard areas are incorporated.	1	1	1	1	0	0	1	1	1	1	1	0	1	1	11	High
V. Suffern - 28	Continue working towards joining CRS.	1	1	1	1	0	0	1	1	1	1	1	0	1	1	11	High
V. Suffern- 29	Notify and provided needed support to the below facility manager/operator to evaluate the Village of Suffern’s flood vulnerability and determine what mitigation options are needed, if any. Assure that any mitigation addresses the 500-year flood event or “worst damage scenario” <ul style="list-style-type: none"> O&R Suffern Gate Station – Gas (hazmat) 	1	1	1	1	0	1	0	0	0	1	0	0	0	0	6	Medium
V. Suffern- 30 (old)	Work with Rockland County	1	1	1	1	0	0	0	0	1	1	1	0	1	0	8	Medium



Table 9.22-13. 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
11.B)	to obtain access to the functional-needs registry and enhance emergency response plans for the Village.																
V. Suffern-31 (old 2.A)	Continue working with the Stormwater Consortium of Rockland County and the County Planning Department to expand and disseminate GIS and other hazard information on the internet.	1	1	1	1	0	0	1	0	0	1	1	0	0	0	7	Medium

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

9.22.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

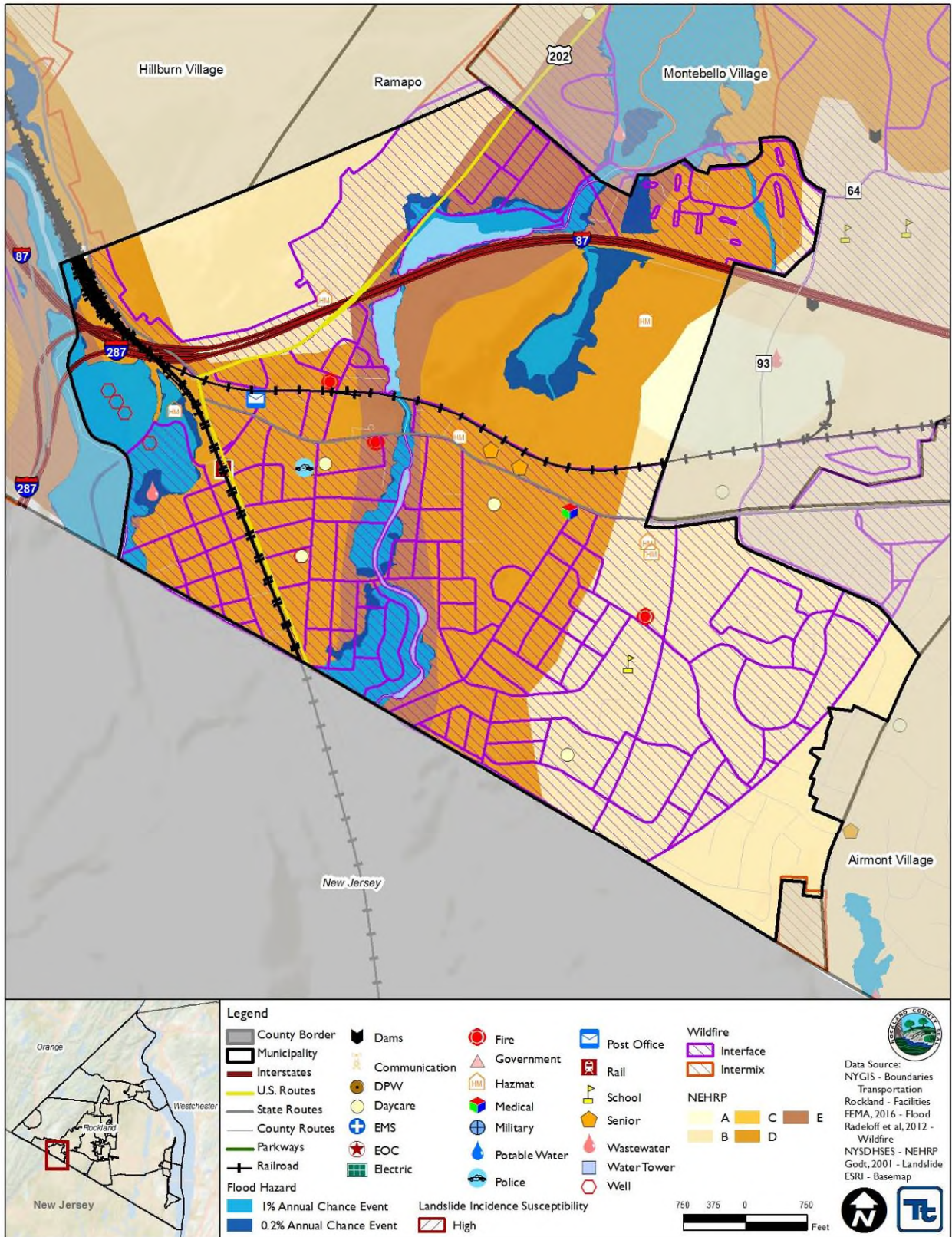
9.22.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Village of Suffern 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 Suffern has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.22.9 Additional Comments

None at this time.

Figure 9.22-1. Village of Suffern Hazard Area Extent and Location Map 1



Action Number:

V. Suffern – 1 (old)

Mitigation Action Name:

Develop a comprehensive Village-wide education and outreach program for storm preparation, response and recovery.

Assessing the Risk	
Hazard(s) addressed:	All Hazards
Specific problem being mitigated:	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.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - 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	Develop a comprehensive Village-wide education and outreach program for storm preparation, response and recovery.
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	Medium - \$20,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village, Emergency Services (police, fire)
Local Planning Mechanism	Hazard Mitigation, Emergency Management, Public Education
Potential Funding Sources	NYSDHSES & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number: V. Suffern – 1 (old)
Mitigation Action Name: Develop a comprehensive Village-wide education and outreach program for storm preparation, response and recovery.

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	1	
Legal	0	
Fiscal	0	NYSDHSES & Village
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All Hazards
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	Medium	

Action Number: V. Suffern – 2 (old)

Mitigation Action Name: Upgrade the Village’s NIXLE

Assessing the Risk	
Hazard(s) addressed:	All Hazards
Specific problem being mitigated:	The current emergency alert system is out of date and needs to be upgraded.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Explore switching to CodeRed or other emergency notification system – not preferred option, residents used to NIXLE
Action/Project Intended for Implementation	
Description of Selected Action/Project	Upgrade the Village’s NIXLE system to notify residents and businesses during Village-wide emergencies. Update the Village’s Emergency Operations Plan to comply with the National Incident Management System (NIMS).
Mitigation Action Type	EAP, LPR
Goals Met	All
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Medium - <\$50,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village, Emergency Services (police, fire), Rockland County
Local Planning Mechanism	Hazard Mitigation, Emergency Management, Public Education
Potential Funding Sources	NYSDHSES & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number: V. Suffern – 2 (old)
Mitigation Action Name: Upgrade the Village’s NIXLE

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	0	
Political	0	
Legal	0	
Fiscal	0	NYSDHSES & Village
Environmental	0	
Social	1	All residents of the Village would benefit
Administrative	1	
Multi-Hazard	1	All Hazards
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	7	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 3

Mitigation Action Name:

Commuter lot signage

Assessing the Risk	
Hazard(s) addressed:	Severe Storm, Flood
Specific problem being mitigated:	Unable to warn commuters of flood risk in the area
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues Put up temporary signage – does not consistently educate public
Action/Project Intended for Implementation	
Description of Selected Action/Project	Purchase and install signage in commuter lots (including Lots A, B, F, and Lake Antrim / Memorial Pool parking) to warn about flooding risk to cars and help educate residents and commuters about the risks of flooding in the area.
Mitigation Action Type	EAP
Goals Met	1, 2, 3, 5
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Medium - <\$50,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village, Emergency Services (police, fire), DPW
Local Planning Mechanism	
Potential Funding Sources	NYRCR
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 3
Commuter lot signage

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Provide warnings of flood risk to commuters that use the lot
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	0	
Legal	0	
Fiscal	0	No funding secure; need to identify ways to fund this project
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	0	
Agency Champion	1	
Other Community Objectives	0	
Total	7	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 4

Mitigation Action Name:

Develop a Community Emergency Response Team (CERT)

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	CERT is needed as a way to education residents about disaster preparedness and trains members in basic disaster response skills.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Explore developing a team that is not CERT established – may have lower standards, CERT is established program
Action/Project Intended for Implementation	
Description of Selected Action/Project	Develop a Community Emergency Response Team (CERT) to educate people about disaster preparedness and train citizen volunteers to assist their community when professional responders are not immediately available to help.
Mitigation Action Type	EAP
Goals Met	1, 2, 3, 4, 5
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Medium - <\$50,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village, Emergency Services (police, fire), Rockland County
Local Planning Mechanism	Hazard Mitigation, Emergency Management, Public Education
Potential Funding Sources	NYSDHSES & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 4
 Develop a Community Emergency Response Team (CERT)

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	NYSDHSES & Village
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 5

Mitigation Action Name:

Develop and maintain a volunteer roster to help homeowners and businesses that may need assistance in moving valuable resources out of harm’s way before predicted storms move into the region and update the Village’s Emergency Operations Plan.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	The Village does not have a list of homeowners and businesses that may need assistance moving resources prior to a storm. Additionally, the Village's EOP does contain this information and is in need of an update.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Ask local non-profits to develop volunteer rosters – less control over consistency/standards
Action/Project Intended for Implementation	
Description of Selected Action/Project	Develop and maintain a volunteer roster to help homeowners and businesses that may need assistance in moving valuable resources out of harm’s way before predicted storms move into the region and update the Village’s Emergency Operations Plan.
Mitigation Action Type	EAP
Goals Met	1, 2, 3, 4, 5
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Medium - <\$50,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village, Emergency Services (police, fire)
Local Planning Mechanism	Hazard Mitigation, Emergency Management, Public Education
Potential Funding Sources	Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 5
 Develop and maintain a volunteer roster to help homeowners and businesses that may need assistance in moving valuable resources out of harm’s way before predicted storms move into the region and update the Village’s Emergency Operations Plan.

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
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 6

Mitigation Action Name:

Develop emergency kits, purchase materials to accommodate pets, and install kitchen equipment, where needed, at shelters in the Village.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Village emergency shelters need emergency kits and property kitchen equipment for when the shelters are in operation.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Ask non-profits to develop emergency kits, etc –may not be capable, may not meet standards
Action/Project Intended for Implementation	
Description of Selected Action/Project	Develop emergency kits, purchase materials to accommodate pets, and install kitchen equipment, where needed, at shelters in the Village.
Mitigation Action Type	SIP
Goals Met	1, 2, 3
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	High
Estimated Cost	Medium - <\$50,000
Priority*	High
Plan for Implementation	
Responsible Organization	Village, Emergency Services (police, fire)
Local Planning Mechanism	Hazard Mitigation, Emergency Management, Public Education
Potential Funding Sources	NYSDHSES & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 6
 Develop emergency kits, purchase materials to accommodate pets, and install kitchen equipment, where needed, at shelters in the Village.

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	NYSDHSES & Village
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	1	
Total	9	
Priority (H/M/L)	High	

Action Number:

V. Suffern – 7

Mitigation Action Name:

Establish a Mahwah River Watershed Management Group

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Currently, there is no watershed management group for the Mahwah River.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Use Rockland-Bergen Bi-state River Commission – not specific enough to Mahwah River watershed
Action/Project Intended for Implementation	
Description of Selected Action/Project	Establish a Mahwah River Watershed Management Group that will collectively address development pressures, stormwater runoff issues and flood control mitigation projects at a watershed (regional) scale. Coordination with the Rockland-Bergen Bi-state River Commission will be part of the group's tasks.
Mitigation Action Type	EAP
Goals Met	All
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Medium - <\$50,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village, Rockland County
Local Planning Mechanism	Hazard Mitigation, Emergency Management, Public Education
Potential Funding Sources	NYSDHSES & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 7
Establish a Mahwah River Watershed Management Group

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	0	
Political	0	
Legal	0	
Fiscal	1	NYSDHSES & Village
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	1	
Total	9	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 8 (old 4.G)

Mitigation Action Name:

Provide support to the Village to explore various buyout and relocation program opportunities, identify eligible properties, and administer the buyout program, and prepare an economic development plan to offset reduction in tax revenues resulting from a buyout

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Repetitively flooded 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):	No action - current problem continues Only support elevation for mitigation – buyouts may be most effective mitigation option
Action/Project Intended for Implementation	
Description of Selected Action/Project	Provide support to the Village to explore various buyout and relocation program opportunities, identify eligible properties, and administer the buyout program, and prepare an economic development plan to offset reduction in tax revenues resulting from a buyout.
Mitigation Action Type	EAP
Goals Met	1, 2, 5, 6, 7
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	Medium
Estimated Cost	Medium
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Suffern, FEMA
Local Planning Mechanism	Hazard Mitigation, Emergency Management, Public Education
Potential Funding Sources	NYRCR
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 8 (old 4.G)

Provide support to the Village to explore various buyout and relocation program opportunities, identify eligible properties, and administer the buyout program, and prepare an economic development plan to offset reduction in tax revenues resulting from a b

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	1	
Legal	0	
Fiscal	1	NYRCR
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (H/M/L)	High	

Action Number:

V. Suffern – 9 (old 4.G)

Mitigation Action Name:

Encourage homeowners in areas susceptible to flooding to move utility and mechanicals from basements to upper floors

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Homeowners need to be made aware of the potential damages to their utility and mechanical systems during flooding events.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Buyout homes that are susceptible to flooding – cost
Action/Project Intended for Implementation	
Description of Selected Action/Project	Encourage homeowners in areas susceptible to flooding to move utility and mechanicals from basements to upper floors. Hire an architect to develop schematic plan options for raised utility rooms, facilitate the use of preapproved plans through the approval process for homeowners and help identify funding sources for the retrofit of existing homes.
Mitigation Action Type	EAP
Goals Met	1, 2, 3, 4, 7
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	Medium
Estimated Cost	Medium
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village of Suffern, FEMA
Local Planning Mechanism	Hazard Mitigation, Emergency Management, Public Education
Potential Funding Sources	NYSDHSES & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:

V. Suffern – 9 (old 4.G)

Mitigation Action Name:

Encourage homeowners in areas susceptible to flooding to move utility and mechanicals from basements to upper floors

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	NYSDHSES & Village
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	8	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 10

Mitigation Action Name:

Inventory of existing stormwater management infrastructure

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	There is a need for a list of existing stormwater management infrastructure in the village.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Ask local colleges and universities to inventory stormwater infrastructure – may not be willing/capable
Action/Project Intended for Implementation	
Description of Selected Action/Project	Inventory of existing stormwater management infrastructure
Mitigation Action Type	EAP
Goals Met	2, 5
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	Medium
Estimated Cost	High - \$225,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village of Suffern, NYSDOT, U.S. Federal Highway Administration
Local Planning Mechanism	Hazard Mitigation, Stormwater
Potential Funding Sources	NYSDHSES & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:

V. Suffern – 10

Mitigation Action Name:

Inventory of existing stormwater management infrastructure

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	NYSDHSES & Village
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	0	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	7	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 11

Mitigation Action Name:

Conduct a feasibility study to determine appropriate locations to implement green infrastructure practices and stormwater storage systems throughout Suffern

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	There is need to identify locations to implement green infrastructure practices and stormwater storage systems in the Village.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Only use hard structure systems for stormwater – not as environmentally friendly, aesthetically pleasing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Conduct a feasibility study to determine appropriate locations to implement green infrastructure practices and stormwater storage systems throughout Suffern
Mitigation Action Type	NSP, EAP
Goals Met	2, 4, 6
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Medium to High
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village of Suffern, NYSDEC
Local Planning Mechanism	Hazard Mitigation, Stormwater
Potential Funding Sources	NYSDEC & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 11
 Conduct a feasibility study to determine appropriate locations to implement green infrastructure practices and stormwater storage systems throughout Suffern

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	NYSDEC & Village
Environmental	1	
Social	0	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 12 (old)

Mitigation Action Name:

Conduct a diagnostic review of the existing Village zoning code and other ordinances and provide recommendations to maximize flood protection and stormwater management, promote green infrastructure practices, and protect surface water resources and flood

Assessing the Risk	
Hazard(s) addressed:	Severe Storm, Flood
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):	No action - current problem continues Encourage residents to use higher standards but do not enforce through code – sporadic impact
Action/Project Intended for Implementation	
Description of Selected Action/Project	Conduct a diagnostic review of the existing Village zoning code and other ordinances and provide recommendations to maximize flood protection and stormwater management, promote green infrastructure practices, and protect surface water resources and flood plains.
Mitigation Action Type	LPR
Goals Met	1, 2, 6, 7
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Medium - <\$50,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village of Suffern
Local Planning Mechanism	Hazard Mitigation, Floodplain Management, Code Enforcement
Potential Funding Sources	Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 12 (old)
 Conduct a diagnostic review of the existing Village zoning code and other ordinances and provide recommendations to maximize flood protection and stormwater management, promote green infrastructure practices, and protect surface water resources and flood

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	1	Village
Environmental	0	
Social	0	
Administrative	1	Code enforcement and the FPA have the ability and knowledge
Multi-Hazard	1	Severe Storm, Flood
Timeline	0	DOF
Agency Champion	0	
Other Community Objectives	0	
Total	8	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 13

Mitigation Action Name:

Provide permanent emergency power generators at the DPW Garage

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	The DPW garage lacks permanent backup power and cannot fully function during periods of power outages.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Install solar panels –costly and weather dependent
Action/Project Intended for Implementation	
Description of Selected Action/Project	Provide permanent emergency power generators at the DPW Garage to maintain operation of the fuel pumps and at the South Street Pump Station to allow for uninterrupted service of the facility.
Mitigation Action Type	SIP
Goals Met	1, 2, 5
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	High
Estimated Cost	Medium to High
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Suffern, DPW
Local Planning Mechanism	Hazard Mitigation, Emergency Management
Potential Funding Sources	NYRCR
Timeline for Completion	Short Term / DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 13
Provide permanent emergency power generators at the DPW Garage

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Allow DPW garage to function properly during power outage events
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	
Political	1	
Legal	0	
Fiscal	0	NYRCR
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	Short Term / DOF
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (H/M/L)	High	

Action Number:

V. Suffern – 14

Mitigation Action Name:

Provide access to the West Ward by way of an at-grade Emergency Railroad Crossing over the NJ Transit Commuter Rail Line.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	There is currently no access to the west ward near the emergency railroad crossing over the NJ Transit commuter rail line.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Tunnel under the NJ Transit Commuter Rail Line – more costly
Action/Project Intended for Implementation	
Description of Selected Action/Project	Provide access to the West Ward by way of an at-grade Emergency Railroad Crossing over the NJ Transit Commuter Rail Line.
Mitigation Action Type	SIP
Goals Met	1, 2, 5
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	High
Estimated Cost	High - \$250,000
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Suffern, NJ Transit, NYSDOT, U.S. Federal Highway Administration
Local Planning Mechanism	Hazard Mitigation, Emergency Management
Potential Funding Sources	NYRCR
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 14
 Provide access to the West Ward by way of an at-grade Emergency Railroad Crossing over the NJ Transit Commuter Rail Line.

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	1	
Legal	0	
Fiscal	0	NYRCR
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (H/M/L)	High	

Action Number:

V. Suffern – 15

Mitigation Action Name:

Install drainage improvements at the Chestnut Street underpass, along Orange Ave and along US Route 202

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	The Chestnut Street underpass along Orange Avenue and Route 202 needs to be improved; area becomes inundated during periods of heavy rain.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Replace underpass with overpass to reduce flooding impacts - cost
Action/Project Intended for Implementation	
Description of Selected Action/Project	Install drainage improvements at the Chestnut Street underpass, along Orange Ave and along US Route 202 to better protect these transportation assets and to ensure that emergency services have access to these areas.
Mitigation Action Type	SIP
Goals Met	1, 2, 4, 5
Applies to existing and or new development, or not applicable	New and Existing
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Suffern, NYSDOT, NYSDEC, U.S. Federal Highway Administration, USACE
Local Planning Mechanism	Hazard Mitigation, Floodplain Management, Emergency Management
Potential Funding Sources	NYSDHSES & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 15
 Install drainage improvements at the Chestnut Street underpass, along Orange Ave and along US Route 202

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	1	
Legal	0	
Fiscal	0	NYSDHSES & Village
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (H/M/L)	High	

Action Number:

V. Suffern – 16

Mitigation Action Name:

Protect the wastewater treatment plant and related facilities

Assessing the Risk	
Hazard(s) addressed:	Severe Storm, Flood
Specific problem being mitigated:	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.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Relocate wastewater treatment plant and related facilities – not feasible
Action/Project Intended for Implementation	
Description of Selected Action/Project	Protect the wastewater treatment plant, owned by the Village, and related facilities to the 500-year flood or worst-case scenario. The Village will determine feasible and cost-effective mitigation actions to implement which may include elevating critical mechanicals, floodproofing entries, installation of flood walls, and relocating the facility.
Mitigation Action Type	SIP
Goals Met	1, 2, 5
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 of Suffern, NYS and/or Rockland County Dept. of Health
Local Planning Mechanism	Hazard Mitigation, Floodplain Management, Emergency Management
Potential Funding Sources	NYRCR
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 16
Protect the wastewater treatment plant and related facilities

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	1	
Legal	0	
Fiscal	0	NYRCR
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Storm, Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (H/M/L)	High	

Action Number:

V. Suffern – 17

Mitigation Action Name:

Protect the water treatment plant and related facilities, including wells, by installing appropriate physical protective measures

Assessing the Risk	
Hazard(s) addressed:	Severe Storm, Flood
Specific problem being mitigated:	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.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Relocate water treatment plant and related facilities – not feasible
Action/Project Intended for Implementation	
Description of Selected Action/Project	Protect the water treatment plant, owned by the Village, and related facilities, including wells to the 500-year flood or worst-case scenario. The Village will determine feasible and cost-effective mitigation actions to implement which may include elevating critical mechanicals, floodproofing entries, installation of flood walls, and relocating the facility.
Mitigation Action Type	SIP
Goals Met	1, 2, 5
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 of Suffern, NYS and/or Rockland County Dept. of Health
Local Planning Mechanism	Hazard Mitigation, Floodplain Management, Emergency Management
Potential Funding Sources	NYRCR & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:

V. Suffern – 17

Mitigation Action Name:

Protect the water treatment plant and related facilities, including wells, by installing appropriate physical protective measures

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	1	
Legal	0	
Fiscal	0	NYRCR & Village
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Storm, Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (H/M/L)	High	

Action Number:

V. Suffern – 18

Mitigation Action Name:

Research options and purchase portable flood barrier walls for protection of Village facilities.

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Village facilities are not protected from flood events
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Build permanent flood barrier walls – cost and aesthetics
Action/Project Intended for Implementation	
Description of Selected Action/Project	Research options and purchase portable flood barrier walls for protection of Village facilities.
Mitigation Action Type	EAP
Goals Met	1, 2, 5
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Medium to High
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village DPW
Local Planning Mechanism	Hazard Mitigation, Floodplain Management
Potential Funding Sources	NYS DHSES & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 18
 Research options and purchase portable flood barrier walls for protection of Village facilities.

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	NYSDHSES & Village
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	6	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 19

Mitigation Action Name:

Conduct a comprehensive evaluation of the Mahwah River Watershed in conjunction with the Ramapo River Watershed

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	There is a need for an evaluation of the Mahwah River Watershed
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Request evaluation of watersheds by local colleges or universities – may not be capable/willing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Conduct a comprehensive evaluation of the Mahwah River Watershed in conjunction with the Ramapo River Watershed to identify mitigation goals and associated performance metrics, assess existing conditions with respect to erosion and deposition patterns, identify local and watershed-scale stressors, understand patterns of channel evolution, and make recommendations regarding flood mitigation.
Mitigation Action Type	NSP, EAP
Goals Met	All
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Suffern
Local Planning Mechanism	Hazard Mitigation, Floodplain Management
Potential Funding Sources	NYSDHSES & Village
Timeline for Completion	Short Term / DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 19
Conduct a comprehensive evaluation of the Mahwah River Watershed in conjunction with the Ramapo River Watershed

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	NYSDHSES & Village
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	Short Term / DOF
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (H/M/L)	High	

Action Number:

V. Suffern – 20

Mitigation Action Name:

Coordinate between the Village, County, and State to develop an environmentally sensitive program

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	There is a need for an environmentally sensitive program in the Village
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Ask local non-profits to develop environmental programs – may not be capable/willing
Action/Project Intended for Implementation	
Description of Selected Action/Project	Coordinate between the Village, County, and State to develop an environmentally sensitive program to (1) clear the channels of the Mahwah and Ramapo Rivers by removing debris and detritus from their bed and banks as well as from the shores of Lake Antrim; (2) develop a program for the ongoing maintenance of these the rivers.
Mitigation Action Type	LPR, NSP, EAP
Goals Met	All
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	High
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village of Suffern, Rockland County, NYS DEC
Local Planning Mechanism	Hazard Mitigation, Floodplain Management
Potential Funding Sources	NYSDEC & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 20
Coordinate between the Village, County, and State to develop an environmentally sensitive program

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	NYSDEC & Village
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 21

Mitigation Action Name:

Restore Lake Antrim by designing and installing improvements to the surrounding bank and floodplain.

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Storm
Specific problem being mitigated:	Lake Antrim area is prone to flooding
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Relocate buildings and infrastructure that are prone to flooding - cost
Action/Project Intended for Implementation	
Description of Selected Action/Project	Restore Lake Antrim by designing and installing improvements to the surrounding bank and floodplain.
Mitigation Action Type	NSP
Goals Met	2, 4
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	High
Estimated Cost	Medium to High
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village of Suffern, Rockland County, NYS DEC
Local Planning Mechanism	Hazard Mitigation, Floodplain Management
Potential Funding Sources	NYSDHSES & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 21
 Restore Lake Antrim by designing and installing improvements to the surrounding bank and floodplain.

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	NYSDHSES & Village
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 22

Mitigation Action Name:

Wastewater Treatment Plant

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	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.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Relocate Wastewater Treatment Plant – not feasible
Action/Project Intended for Implementation	
Description of Selected Action/Project	Wastewater Treatment Plant – build a small space on the roof of the sludge building to house the motor control center. This will ensure its continued operation in the event of a flood. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario".
Mitigation Action Type	SIP
Goals Met	2, 5
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	DPW
Local Planning Mechanism	Hazard Mitigation, Floodplain Management, Emergency Management
Potential Funding Sources	NYRCR
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 22
Wastewater Treatment Plant

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	1	
Legal	0	
Fiscal	0	NYRCR
Environmental	0	
Social	1	All residents of the Village would benefit
Administrative	1	
Multi-Hazard	1	Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (H/M/L)	High	

Action Number:

V. Suffern – 23

Mitigation Action Name:

Water Supply Wells

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	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.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Relocate water supply wells – Not feasible
Action/Project Intended for Implementation	
Description of Selected Action/Project	Water Supply Wells – raise the roof of the building to protect the critical equipment inside which can be mounted above the design flood elevation. Assume that any mitigation addresses the 500-year flood event or "worst damage scenario".
Mitigation Action Type	SIP
Goals Met	2, 5
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	DPW
Local Planning Mechanism	Hazard Mitigation, Floodplain Management, Emergency Management
Potential Funding Sources	NYRCR, Federal Grants
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number: V. Suffern – 23
Mitigation Action Name: Water Supply Well #4

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	1	
Legal	0	
Fiscal	0	NYRCR, Federal Grants
Environmental	0	
Social	1	All residents of the Village would benefit
Administrative	1	
Multi-Hazard	1	Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (H/M/L)	High	

Action Number:

V. Suffern – 24

Mitigation Action Name:

South Street Pump Station

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	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.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Relocate South Street Pump Station – not feasible
Action/Project Intended for Implementation	
Description of Selected Action/Project	South Street Pump Station – replace existing pumps with dry pit submersible pumps and build a raised exterior platform for a new emergency generator. This pump serves the entire village. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario".
Mitigation Action Type	SIP
Goals Met	2, 5
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	DPW
Local Planning Mechanism	Hazard Mitigation, Floodplain Management, Emergency Management
Potential Funding Sources	NYSEFC & Village
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number: V. Suffern – 24
Mitigation Action Name: South Street Pump Station

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	1	
Legal	0	
Fiscal	0	NYSEFC & Village
Environmental	0	
Social	1	All residents of the Village would benefit
Administrative	1	
Multi-Hazard	1	Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (H/M/L)	High	

Action Number: V. Suffern – 25

Mitigation Action Name: DPW Garage

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	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.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Relocate DPW Garage – not feasible
Action/Project Intended for Implementation	
Description of Selected Action/Project	DPW Garage – upgrade electrical services and a raised electrical panel above the design flood elevation and install a larger generator. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario".
Mitigation Action Type	SIP
Goals Met	2, 5
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	DPW
Local Planning Mechanism	Hazard Mitigation, Floodplain Management, Emergency Management
Potential Funding Sources	NYRCR
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number: V. Suffern – 25
 Mitigation Action Name: DPW Garage

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	1	
Legal	0	
Fiscal	0	NYRCR
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood
Timeline	0	DOF
Agency Champion	1	
Other Community Objectives	1	
Total	10	
Priority (H/M/L)	High	

Action Number:

V. Suffern – 26 (old)

Mitigation Action Name:

Identify different options to improve drainage and flood prevention in the areas of Lonegran Drive, downtown business district, and ballfield.

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Areas of Lonegran Drive, downtown business district, and ballfield are prone to flooding
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Mitigate structures and ballfield for flooding – flooding issues remain and use of business district and ballfield are limited
Action/Project Intended for Implementation	
Description of Selected Action/Project	Identify different options to improve drainage and flood prevention in the areas of Lonegran Drive, downtown business district, and ballfield.
Mitigation Action Type	LPR, EAP
Goals Met	1, 2, 5
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	Medium
Estimated Cost	Medium to High
Priority*	Medium
Plan for Implementation	
Responsible Organization	DPW
Local Planning Mechanism	Hazard Mitigation, Floodplain Management
Potential Funding Sources	Grant funding where applicable
Timeline for Completion	Short Term / DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern – 26 (old)
 Identify different options to improve drainage and flood prevention in the areas of Lonegran Drive, downtown business district, and ballfield.

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	Grant funding where applicable
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood
Timeline	0	Short Term / DOF
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern – 27 (old 1.B)

Mitigation Action Name:

When updating the Village Comprehensive Plan, ensure that hazard mitigation and hazard areas are incorporated.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Current comprehensive plan does not incorporate natural hazards
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Update the Comprehensive Plan but do not incorporate hazard mitigation or hazard areas
Action/Project Intended for Implementation	
Description of Selected Action/Project	When updating the Village Comprehensive Plan, ensure that hazard mitigation and hazard areas are incorporated.
Mitigation Action Type	LPR
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, Floodplain Management, Comprehensive Plan
Potential Funding Sources	Municipal Budget
Timeline for Completion	Short Term (next comprehensive plan update)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:

V. Suffern – 27 (old 1.B)

Mitigation Action Name:

When updating the Village Comprehensive Plan, ensure that hazard mitigation and hazard areas are incorporated.

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	1	
Social	1	
Administrative	1	Municipal staff; planning department
Multi-Hazard	1	All
Timeline	0	Short Term (next comprehensive plan update)
Agency Champion	1	
Other Community Objectives	1	Supports the Comprehensive Plan
Total	11	
Priority (H/M/L)	High	

Action Number: V. Suffern – 28 (old)
Mitigation Action Name: Continue working towards joining CRS.

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	The Village is currently not in the CRS program; but working towards joining
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - 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	Continue working towards joining CRS.
Mitigation Action Type	LPR
Goals Met	All
Applies to existing and or new development, or not applicable	New and Existing
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	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number: V. Suffern – 28 (old)
Mitigation Action Name: Continue working towards joining 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	1	
Social	1	Residents with flood insurance would benefit
Administrative	1	
Multi-Hazard	1	Flood
Timeline	0	Short Term
Agency Champion	1	
Other Community Objectives	1	
Total	11	
Priority (H/M/L)	High	

Action Number:

V. Suffern-29

Mitigation Action Name:

Notify and provided needed support to the critical facility manager/operator

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	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.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Hire outside group to evaluate vulnerability and mitigation options - cost
Action/Project Intended for Implementation	
Description of Selected Action/Project	Notify and provided needed support to the below facility manager/operator to evaluate the Village of Suffern’s flood vulnerability and determine what mitigation options are needed, if any. Assure that any mitigation addresses the 500-year flood event or “worst damage scenario” • O&R Suffern Gate Station – Gas (hazmat)
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, Emergency Management, Floodplain Management
Potential Funding Sources	Municipal budget
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

Action Number:
Mitigation Action Name:

V. Suffern-29
 Notify and provided needed support to the critical facility manager/operator to evaluate the Village of Suffern’s flood vulnerability and determine what mitigation options are needed, if any.

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
Agency Champion	0	
Other Community Objectives	0	
Total	6	
Priority (H/M/L)	Medium	

Action Number:

V. Suffern-30 (old 11.B)

Mitigation Action Name:

Work with Rockland County to obtain access to the functional-needs registry and enhance emergency response plans for the Village.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	The current emergency response plan does not include the functional-needs registry
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Develop municipal specific functional-needs registry – redundant and costly
Action/Project Intended for Implementation	
Description of Selected Action/Project	Work with Rockland County to obtain access to the functional-needs registry and enhance emergency response plans for the Village.
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:

V. Suffern-30 (old 11.B)

Mitigation Action Name:

Work with Rockland County to obtain access to the functional-needs registry and enhance emergency response plans for the Village.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Provide assistance to those with limited mobility or special needs
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	Residents with limited mobility or special needs
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:

V. Suffern-31 (old 2.A)

Mitigation Action Name:

Continue working with the Stormwater Consortium of Rockland County and the County Planning Department to expand and disseminate GIS and other hazard information on the internet.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	GIS mapping needs to be updated for the Village
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - current problem continues Request assistance from local colleges and universities in developing GIS mapping – may not be feasible, sustainable
Action/Project Intended for Implementation	
Description of Selected Action/Project	Continue working with the Stormwater Consortium of Rockland County and the County Planning Department to expand and disseminate GIS and other hazard information on the internet.
Mitigation Action Type	LPR, EAP
Goals Met	1, 2, 3, 5
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 Trustee
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:

V. Suffern-31 (old 2.A)
 Continue working with the Stormwater Consortium of Rockland County and the County Planning Department to expand and disseminate GIS and other hazard information on the internet.

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	0	
Administrative	1	
Multi-Hazard	1	All
Timeline	0	DOF
Agency Champion	0	
Other Community Objectives	0	
Total	7	
Priority (H/M/L)	Medium	