

8.11 - Jurisdictional Annex, Village of Nassau

This section presents the jurisdictional annex for the Village of Nassau. The jurisdiction's governing body passed a formal resolution to participate in this multi-jurisdictional hazard mitigation plan update. A copy of their resolution is maintained at the local government offices and at the Rensselaer County Bureau of Public Safety.

8.11.1 Contact Information

The jurisdiction's resolution to participate identified a Primary Point of Contact and an Alternate for this hazard mitigation plan update. These individuals represented the jurisdiction on the county-wide Core Planning Group and led a local team of Jurisdictional Assessment Team Members who undertook various local activities related to the plan update.

HAZARD MITIGATION PLAN POINTS OF CONTACT						
Primary Point of Contact				Alternate Point of Contact		
Name: Robert W. Valenty Title: Mayor Address: 40 Malden Street, Nassau, NY 12123 Phone Number: 518-466-5332 E-mail Address: mayor@villageofnassau.org				Name: Gaetano J. Forte, III Title: Trustee Address: 40 Malden Street, Nassau, NY 12123 Phone Number: 518-470-0350 E-mail Address: trusteeforte@villageofnassau.org		
Jurisdictional Assessment Team Members						
Local Jurisdiction Role/Position	Name	Email	Phone	Date of Invitation	Method of Invitation	Agreed to participate?
Land Use/Community Planner	Thomas Snow	trsnow@gw.dec.state.ny.us	518-339-5394	2/11/2019	Email	Y
Emergency Manager	Robert W. Valenty	mayor@villageofnassau.org	518-466-5332	2/1/2019	Self	Y
Floodplain Manager/Administrator	Kevin Hitchcock	kevinh011@aol.com	518-766-3044	2/7/2019	Email	Y
Public Works Director / City Engineer	Randy Howarth	R.Howarth@hvcc.edu	518-461-7223	2/13/2019	In-person	Y
Building Code Official	Kevin Hitchcock	kevinh011@aol.com	518-766-3044	2/7/2019	Email	Y
Fiscal/Budget Officer	Robert W. Valenty	mayor@villageofnassau.org	518-466-5332	2/1/2019	Self	Y
Manager/Administrator	Robert W. Valenty	mayor@villageofnassau.org	518-466-5332	2/1/2019	Self	Y
Elected Officials	Gaetano J. Forte	trusteeforte@villageofnassau.org	518-470-0350	2/1/2019	In-person	Y
Local Hospital	N/A					
Major University	N/A					
Significant Business	N/A					
Neighboring County 1	N/A					
Neighboring County 2	N/A					
Neighboring County 3	N/A					
Neighboring County 4	N/A					
Tribal Group/Nation	N/A					

8.11.2 JURISDICTION PROFILE

8.11.2.1 Location and Land Area

The Village of Nassau is located in south central Rensselaer County, in the eastern part of New York State. It is located within the Town of Nassau and shares a border with Columbia County to the south; and Schodack to the west.

According to the 2010 U.S. Census Bureau, Rensselaer County has a total area of 665 square miles (1,720 km²), of which 652 square miles (1,690 km²) is land and 13 square miles (34 km²) (1.9%) is water. Of that, Village of Nassau has a total area of 0.7 square miles (1.8 km²), of which 0.7 square miles (1.8 km²) is land. None of the area is covered with water.

8.11.2.2 Population

According to the 2010 U.S. Census Bureau's American Community Survey 5-Year Estimates, the population of Village of Nassau is estimated to be 1,133 persons.

8.11.2.3 Demographics

Of a total area of 0.62 square miles (2010 Census data), the land area is 0.62 sq. mi. and population per square mile is 1,765.2 persons.

Of the total population, there are 95.1 males per 100 females (all ages). 19.9% of the population are persons under 18 years, and 13.4% are persons 65 years and over (2010 Census). Young and old subsets of the population may have unique needs as far as care requirements and potential cognitive and/or mobility limitations before, during, and after a disaster.

The number of persons who speak a language other than English is 18, or 1.9%, of which 0.0% speak English less than "very well". Persons not speaking English well may have trouble understanding instructions regarding disaster preparation, response, and recovery.

Regarding education, of persons age 25 years and older, 84.9% are high school graduates or higher, and 23.7% have received their bachelor's degree or higher (2000 Census data). Higher education can help enhance skills associated with cognition and evaluation of risk. Higher education can, therefore, foster an overall improved perception of risk, particularly where individuals may not have prior direct experience preparing for, responding to, or recovering from a particular hazard in their daily lives.

Regarding families and living arrangements, from 2013 to 2017 there were 496 total households and 2.28 persons per household. Persons living alone sometimes have less of a direct social circle for support before, during, and after a disaster.

The Census Bureau classifies all people not living in housing units (house, apartment, mobile home, rented rooms) as living in group quarters. The two types of group quarters are Institutional (correctional facilities, nursing homes, mental hospitals) and Non-Institutional (college dormitories, military barracks, group homes, missions, shelters). The Census Bureau maintains no group quarters information for this municipality. The needs of persons living in group quarters are unique, and residents are likely to have access and functional needs and unique care requirements before, during, and after a disaster.

According to 2017 ACS, the median household income was \$67,308; the per capita income in past 12 months (2017) was \$32,071; and the percentage of persons in poverty at 6.7%. Lower income persons have limited financial resources to draw from in both a pre- and post-disaster scenario and are likely to require support as they prepare for, and recover from, hazard events.

The total of noninstitutionalized civilians with a disability is 16.6%, and percentage of people with a disability over age 65 years is 47.2%. The total percentage of persons (civilian, noninstitutionalized) without health insurance is 2.2%. Persons with disabilities have access and functional needs such as cognitive or mobility limitations that may put them at greater risk before, during, and after a hazard event.

8.11.2.4 Brief History

The area that is now Rensselaer County was inhabited by the Algonquian-speaking Mohican Indian tribe at the time of European encounter. Kiliaen van Rensselaer, a Dutch jeweler and merchant, purchased the area in 1630, as part of the Dutch colony New Netherland. The land passed from English rule (1664) to Dutch control (1673), then back to English rule (1674), until American independence in 1776. Rensselaer County was created in 1790s from an area that was originally part of the very large Albany County. In 1807 the county reorganized.

The Village of Nassau is near the site of the first settlement of the Town of Nassau, which occurred around 1760. The earliest inhabitants were Native Americans, followed by westward expansion by Dutch/New England settlers. At first the community was called "Union Village." The village was originally incorporated in the 19th Century as "Schermerhorn's Village," receiving charters in 1819 and 1866, but abandoned that village status until it more recently gained incorporation as Nassau Village. Much of Nassau's early development is credited to Jonathan Hoag and Moses Vail who operated commercial interests and mills in the village.

8.11.2.5 Governing Body Format

The governing body of the municipality consists of a Mayor, Board of Trustees, and various other department heads. This council serves as the county's municipal/local government, performing executive functions of different natures. Members of this governing body are elected by the people.

8.11.2.6 Growth/Development Trends

Performing an assessment of growth and development trends is one step of a hazard mitigation plan update. This look into the future is important because development in hazard areas could put more people and property in harm's way and, in turn, could work to increase potential disaster-related damages and losses at a time when the mitigation plan's purpose is to reduce the potential for damages emanating from natural disasters.

An evaluation of growth and development trends was undertaken by each participating jurisdiction as part of the development of the initial plan in 2011. As part of this plan update,

the Village of Nassau reviewed and updated its prior feedback to reflect current conditions in the community as of early 2019.

The Village of Nassau did not note any major residential or commercial development taking place, or any major infrastructure development planned for the next 5 years in the municipality. The Village of Nassau is only two square miles and does not have enough vacant land for a development.

New Development/Potential Development in the Municipality						
Property Name	Type (Residential or Commercial)	No. of Structures	Address	Block and Lot	Known Hazard Zone	Description /Status
Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported

The Village of Nassau enforces Village Code, Chapters 42 (Building construction and fire prevention), 44 (Vacant Buildings), 64 (Flood Damage Protection), 87 (Property Maintenance), and 120 (Zoning) to protect new development from the effects of natural hazards. The Code Enforcement Official/Building Inspector enforces regulations in the floodplain area on building improvements. Also, he enforces drainage problems in other areas.

8.11.3 HAZARD IDENTIFICATION

The following hazards represent those that were deemed to be significant hazards of concern for the Village of Nassau:

Profiled Hazards in the Village of Nassau													
Jurisdiction	Atmospheric Hazards						Hydrologic Hazards			Geologic Hazards		Other Hazards	
	Extreme Temperatures (Coldwave/Heat Wave)	Hurricane/Tropical Storm	Lightning	Tornado	Wind	Winter Storm	Drought	Flood			Earthquake	Landslide ⁴	Wildfire ⁵
								Flooding ²	Dam Failure ¹	Ice Jam ³			
Nassau, Village of	■	■	■	■	■	■	■	■	■	■	■	■	

Notes: (1) Based on presence of a High hazard dam (NYSDEC classification) either in the municipality or close upstream on a watercourse flowing through that municipality and feedback from the County Planning Department. (2) Based on identification of improved property in mapped FEMA flood hazard zones. (3) Based on historical records, Flood Insurance Studies, and local information as well as feedback from the County Planning Department. (4) Based on identification of improved property in mapped high incidence or high susceptibility landslide risk zones, plus those municipalities in which details of individual landslide events are available. (5) Based on identification of improved property in mapped wildfire hazard zones.

8.11.4 NOTABLE HAZARD EVENT OCCURRENCES SINCE 2011

Rensselaer County has a long history of natural hazard events occurring, as detailed in Section 3 of this plan. A summary of historical events is provided in each of the hazard profiles of Section 3 and includes a chronology of events that have affected the County and its municipalities.

NOAAs NCDC records 1,141 hazard event occurrences from 1950 to 2018 causing 1 fatality, 116 injuries, \$27,679,000 in property damage, and \$305,800 in crop damage. The table below presents a summary of 415 events that are included in NOAA's NCDC records for Rensselaer County since the prior 2011 HMP was prepared to summarize the recent range and impact of natural hazard events potentially affecting the County and its municipalities. For details of events prior to 2011, refer to Section 3 of this plan.

Natural Hazard Event History (January 2011 through December 2018)					
Event Type	Count	Fatalities	Injuries	Property Damage	Crop Damage
Blizzard	2	0	0	\$0	\$0
Cold/Wind Chill	28	0	0	\$0	\$0
Excessive Heat	3	0	0	\$0	\$0
Extreme Cold/Wind Chill	8	0	0	\$0	\$0
Flash Flood	20	0	0	\$320,000	\$0
Flood	16	0	0	\$10,000	\$0
Frost/Freeze	6	0	0	\$0	\$0
Hail	29	0	0	\$0	\$0
Heat	17	0	0	\$0	\$0
Heavy Rain	1	0	0	\$0	\$0
Heavy Snow	13	0	0	\$0	\$0
High Wind	17	0	0	\$0	\$0
Lightning	1	0	0	\$50,000	\$0
Storm Surge/Tide	1	0	0	\$0	\$0
Strong Wind	22	0	0	\$48,000	\$4,000
Thunderstorm Wind	141	0	7	\$0	\$0
Tropical Storm	2	0	0	\$0	\$0
Winter Storm	28	0	0	\$0	\$0
Winter Weather	60	0	0	\$0	\$0
Total	415	0	7	\$428,000	\$4,000

Since 1954, Rensselaer County has been designated as eligible for at least one form of FEMA assistance in 16 Federally-declared major disasters and eight Federally-declared emergencies. Since the adoption of the 2011 HMP, Rensselaer County has been designated as eligible for at least one form of FEMA assistance in three of the state's 12 Federally-declared major disasters (2011 through 2018).

Rensselaer County Disaster Declarations, 2011-2018					
Declaration Year	Event Incident Period	Declaration Type	Disaster Type	Disaster Number	Rensselaer County Designation
2017	March 14-15, 2017	Major Disaster Declaration	Severe Winter Storm and Snowstorm	DR-4322	Declared for PA only
2011	September 7-11, 2011	Emergency Declaration	Tropical Storm Lee	EM-3341	Declared for PA Category B
2011	August 26, 2011 through September 5, 2011	Major Disaster Declaration	Hurricane Irene	DR-4020	Declared for PA and IA
2011	December 26-27, 2010	Major Disaster Declaration	Severe Winter Storm and Snowstorm	DR-1957	Declared for PA Category B

Source: FEMA, online at <https://www.fema.gov/disasters>, queried on July 11, 2019
PA= FEMA's Public Assistance Program
IA= FEMA's Individual Assistance Program

Rensselaer County Disaster Declarations, 2011-2018					
Declaration Year	Event Incident Period	Declaration Type	Disaster Type	Disaster Number	Rensselaer County Designation
Category B= FEMA's Public Assistance Program Category B (Emergency Protective Measures)					

Some more recent notable events in The Village of Nassau since 2011 include:

August 28, 2011 – Irene

The remnants of Hurricane Irene brought heavy to extreme rainfall throughout Rensselaer County.

October 29-30, 2012 – Sandy

Rainfall in Rensselaer County was not excessively heavy and did not cause notable flooding, thanks to dry antecedent conditions. Wind gusts of 40 to 60 mph were common from the afternoon of the 29th until the early morning hours of the 30th.

September 12, 2013 – Heavy Rain and Flash Flooding

The Kinderhook Creek overflowed its banks and flooded Chatham Street in Nassau. The water also rose and affected a senior housing complex, which prompted an evacuation of the building.

June 30, 2017 to July 1, 2017 - Severe Storms and Flooding

Numerous strong to severe thunderstorms occurred across Rensselaer County. Thunderstorm winds caused damages throughout the county, downing trees and power lines, and heavy rains caused flooding in many areas of the county.

8.11.5 NATIONAL FLOOD INSURANCE PROGRAM SUMMARY

The Village of Nassau has participated in FEMA's National Flood Insurance program (NFIP) since August 11, 1978.

- Total number of policies¹: 3
- Insurance in force²: \$630,600
- Total number of losses: 24
- Total claims paid: \$802,056
- Repetitive Loss Properties: 0
- Severe Repetitive Loss Properties: 0

The Village of Nassau provided the following NFIP Administrator Input in 2019, for inclusion in the 2019 HMP.

¹ Policies in Force from www.fema.gov on 02/21/19, data current as of 09/30/18.

² Insurance in Force from www.fema.gov on 02/21/19, data current as of 09/30/18.

Name: Kevin Hitchcock Title: Floodplain Manager/Floodplain Administrator/NFIP Coordinator

Community: Village of Nassau Email and Phone: buildingdept@villageofnassau.org / 518-766-3044



Worksheet 2 - NFIP

Note: This form should be filled out by your floodplain administrator. Submittals should be returned via email to Jay Wilson at jwilson@renco.com. Feel free to contact Anna Foley of AECOM if you have questions, at anna.foley@aecom.com. All communities participating in the National Flood Insurance Program (NFIP) provided FEMA with a floodplain management ordinance and a designated floodplain administrator as a prerequisite to enter the program. All participating communities must provide the information below. Please return a copy of your floodplain management ordinance to us with this submittal.

Adoption Date of your Current Floodplain Management Ordinance	Date of Entry into NFIP ¹	Position or Title of Your Jurisdiction's Designated Floodplain Manager/Administrator (may also be called NFIP Coordinator)	Is this person a Certified Floodplain Manager?	Is floodplain management an auxiliary function?	Is your community in good standing with the NFIP?
1992	8/11/78	Kevin Hitchcock, Building Inspector	[] Yes [X] No	[X] Yes [] No	[X] Yes [] No

Provide an explanation of NFIP administration services (i.e., permit review, GIS, education or outreach, inspections, engineering capability, etc.):

Permit review, acceptance of engineered building plans, assistance with mapping, education, design professional hired by applicant, Village designated engineer hired by applicant if required.

Describe barriers to running an effective NFIP program in the community (if applicable):

When was most recent FEMA Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?*	Is a CAV or CAC scheduled or needed?	Does the current floodplain management ordinance exceed FEMA or State minimum requirements? If so, describe how.	Is training of staff regarding NFIP issues planned?	Does your community intend to continue to enforce the floodplain management requirements including regulating new construction in Special Flood Hazard Areas (SFHAs)?	Does your community participate in the CRS? If so, state your Class.	Does your community intend to continue its participation in the CRS program?	If your community is not currently participating in the CRS program, are you intending to initiate the process during the next planning cycle?
[] Yes [X] No	[] Yes [X] No	[X] Yes [] No	[X] Yes [] No	[] Yes* [X] No * Class _____	[] Yes [X] No	[] Yes [X] No	

*Describe any outstanding compliance issues (i.e., current violations):

¹ Your date of entry into the NFIP can be found at: <http://www.fema.gov/cis/NY.html> (column "Reg-Emer Date").

Rensselaer County Multi-Jurisdictional Hazard Mitigation Plan Update – NFIP Worksheet NFIP-1

Name: Kevin Hitchcock Title: Floodplain Manager/Floodplain Administrator/NFIP Coordinator

Representing: Village of Nassau Email and Phone: kevinh011@aol.com 518-766-3044



Provide an explanation of your local floodplain permitting process:

Building permit application and review.

Does your community intend to continue floodplain identification and mapping services including any local requests for map updates?	Does your community intend to initiate/continue the buyouts of repetitive loss properties?	Does your community intend to commit staff or resources to improve local mapping or code administration in the future?	Does your community intend to provide local outreach to promote the sale of flood insurance?	Does your community intend to participate in RiskMAP meetings and planning initiatives?	Does your community intend to continue to implement structural improvements to mitigate against flooding - culverts, drainage basins, etc.?	Does your community intend to continue to implement home improvement programs designed to minimize basement flooding?	Does your community intend to continue to implement roadway improvements to reduce damage from future flooding events?	Does your community intend to implement plans and programs in coordination with a local or regional drainage/sewer authority?
[X] Yes [] No	[] Yes [X] No	[X] Yes [] No	[X] Yes [] No	[X] Yes [] No	[X] Yes [] No	[X] Yes [] No	[X] Yes [] No	[X] Yes [] No

Does your community intend to adopt the new FEMA Advisory Base Flood Elevations?	As Floodplain Manager, did you (or your predecessor at the time) actively participate in the development of the initial Hazard Mitigation Plan?	As Floodplain Manager, are you actively participating in the development of this Hazard Mitigation Plan Update?	Have there been any changes to your community's local floodplain management program since the last version of the plan in 2011?
[] Yes [] No	[X] Yes [] No	[X] Yes [] No	[] Yes* [X] No

* If you answered "yes", that there have been changes to your local program since 2011, please describe:

Provide a description of your community assistance and monitoring activities:

The building inspector (who is also the floodplain manager), is available for consultation with those in the community who wish to build/improve in the floodplain. All Village code is also available online for easy reference and retrieval. In terms of monitoring, the Village requires building permits for all construction issued by the building inspector and thus is aware of any construction/improvements in the floodplain. For those who circumvent the permitting process, the code enforcement officer responds to reports received from the community as well as patrolling the Village searching for violations. Upon finding construction/improvements without a permit, the official communicates enforcement issues to both the offender as well as the building inspector, instructing the offender of the requirements for a building permit and adherence to building and fire codes as well as additional floodplain concerns.

NFIP participating communities are required to update/revise their floodplain management ordinance to ensure that it complies with the latest FEMA regulations. Will your community continue to commit to this program requirement?	NFIP participating communities are also required to update/revise their floodplain management ordinance to be consistent with the latest FIRMs. Will your community continue to commit to this program requirement?
[X] Yes [] No	[X] Yes [] No

Note: NFIP policy statistics by community are maintained at: <http://bsa.nfipstat.fema.gov/reports/1011.htm#NTI>
 NFIP claims data by community is maintained at: <http://bsa.nfipstat.fema.gov/reports/1040.htm#34>
 Information about structures at risk of flooding can be found in the current Hazard Mitigation Plan.
 All NFIP participating communities should encourage local residents to purchase and maintain flood insurance.

Rensselaer County Multi-Jurisdictional Hazard Mitigation Plan Update – NFIP Worksheet NFIP-2

8.11.6 ASSET IDENTIFICATION AND CHARACTERIZATION

An inventory of geo-referenced assets in Rensselaer County has been created in order to identify and characterize property and persons potentially exposed to the identified hazards. Section 3b of the plan presents the asset identification and characterization process in great detail. The following table presents an overview of assets in Rensselaer County³ and the subset of those assets that fall within the Village of Nassau.

³ The County totals are included here for readers to understand the proportion of countywide assets that lie within this municipality.

Asset Inventory																			
Jurisdiction	Improved Property (RCV ⁴)	Emergency Facilities					Critical Infrastructure and Utilities										Other Key Facilities		Historic and Cultural Resources
		Fire Stations	Police Stations	EMS / Ambulance Stations	Hospitals	Shelters ⁵	Wastewater Facilities	Water Treatment Facilities	Airports	Railroads (Passenger/Freight Station)	Electric Power Facilities	Communications Facilities	Oil Facilities	Hazardous Materials Sites	Natural Gas Facilities	Ports	Schools	Residential Senior Care Facilities ⁶	
Rensselaer County	\$33,333,947,000	44	9	19	2	33	8	1	0	13	1	6	5	60	1	12	64	3	84
Village of Nassau	\$173,160,000	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3
Rensselaer County	Population, Census 2010:		159,429																
Village of Nassau	Population, Census 2010:		1,133																
Rensselaer County	Vulnerable Population, Census 2010 (under 5 years, and over 64 years)		30,429																
Village of Nassau	Vulnerable Population, Census 2010 (under 5 years, and over 64 years)		212																

⁴ Replacement Cost Value

⁵ Specific shelter data is protected information and is not released to the public unless and until necessary during a disaster.

⁶ * As per the County Department of Economic Development and Planning, these figures only encompass the senior centers which are not residential facilities.

Exposure – Assets in the Floodplain

Land. Approximately six percent of Rensselaer County's land area is located in the 100-year floodplain.

Land in the 100-year Floodplain			
Municipality	Land Area of Municipality (Acres)	Land in the 100-year Floodplain (Acres)	Percent of Land in the 100-Year Floodplain (%)
Nassau, Village of	442	49	11%

Improved Property. Approximately six percent of Rensselaer County's improved property is located in the 100-year floodplain.

Improved Property in the 100-year Floodplain			
Municipality	Replacement Cost Value (RCV) Structure and Contents (\$)	RCV in the 100-year Floodplain (\$)	Percent of RCV in the 100-Year Floodplain (%)
Nassau, Village of	\$173,160,000	\$11,701,596	7%

Population. Approximately six percent of the population of the Village of Nassau resides in the 100-year floodplain.

Population in the 100-Year Floodplain			
Municipality	Total Population (Census 2010)	Estimated Population in the 100 year Floodplain	Percent of Population in the 100 year Floodplain
Nassau, Village of	1,133	70	6%

Critical Facilities. No critical facilities (emergency facilities, critical infrastructure and utilities, and other key facilities, as presented in Section 3b) are located in the floodplain in the Village of Nassau.

Historic and Cultural Resources. One listed historic or cultural resource is located in the floodplain in the Village of Nassau.

Historic and Cultural Resources in the Floodplain			
Municipality	Historic Structure/Landmark/District	Location/Address	Flood Zone ⁷
Nassau, Village of	Albany Avenue Historic District	Albany Avenue	A/AE/AO

⁷ 100-year floodplain = A/AE/AO; 500-year floodplain = X500

8.11.7 POTENTIAL FUTURE DAMAGES

Estimated annual losses provided in this section are based on best available data, and the methodologies applied result in an approximation of risk. Loss estimates should be used to understand relative risk from hazards.

Uncertainties are inherent in any loss estimation methodology, arising in part from incomplete scientific knowledge concerning natural hazards and their effects on the built environment. Uncertainties also result from approximations and simplifications that are necessary for a comprehensive analysis (i.e., incomplete inventories, demographics or economic parameters

The following table provides estimated average annual losses from HAZUS-MH 4.0 runs, where available. For hazards for which HAZUS modules are not available, historic damages have been distributed across municipalities based on their proportion of improved property. It is important to note that this table reflects estimates of average annual damages. For any hazard, individual event damages could be substantially (orders of magnitude) higher.

For the Village of Nassau, the hazard with the highest estimated average annual losses is flooding.

Summary of Annual Loss Estimates – Village of Nassau ⁸													
Municipality	Replacement Cost Value of Improvements (\$)	Extreme Temperatures	Hurricane/ Tropical Storm - Wind	Hurricane/ Tropical Storm – Wind + Flood	Lightning	Tornado	Wind	Winter Storm (Ice Storm/ Snow Storm)	Drought	Flood	Earthquake	Landslide	Wildfire
		NOAA NCEI, 1996-2018	HAZUS	NOAA NCEI, 1996-2018	NOAA NCEI, 1996-2018	NOAA NCEI, 1996-2018	NOAA NCEI, 1996-2018	NOAA NCEI, 1996-2018	NOAA NCEI, 1996-2018	NOAA NCEI, 1996-2018	HAZUS	HAZUS	NOAA NCEI, 1996-2018
Nassau, Village of	\$173,160,000	\$7	\$57	\$449	\$56	\$2,462	\$623	\$175	\$0	\$22,500	\$418	\$0	\$0

⁸ * **It is important to note that this table reflects estimates of average annualized damages. For any hazard, individual event damages could be substantially higher.**

8.11.8 HAZARD RANKINGS AND KEY RISK FINDINGS

Hazard rankings for the Village of Nassau are provided in the table below. Hazard priorities are based on each hazard's likelihood of occurrence, potential consequences, relative risk and average annualized losses. Rows are shaded red for High Hazard Priority; yellow for Moderate Hazard Priority; and green for Low Hazard Priority.

Flooding is the Village of Nassau's highest priority hazard.

Hazard Rankings – Village of Nassau					
Hazard	Future Probability	Potential Consequence	Relative Risk	Hazard Priority	Average Annualized Losses ⁹
Extreme Temperatures (Coldwave/ Heat Wave)	Low	Low	Low	Low	\$7
Hurricane/ Tropical Storm	Low	High	Moderate	Moderate	\$57 Wind; \$449 Wind + Flood
Lightning	High	Low	Low	Low	\$56
Tornado	Low	High	High	High	\$2,462
Wind	High	Low	High	High	\$623
Winter Storm (Ice Storm/Snow Storm)	High	Moderate	Moderate	Moderate	\$175
Drought	Low	High	Low	Low	\$0
Flood	High	High	High	High	\$22,500
Earthquake	Low	High	Moderate	Moderate	\$418
Landslide	High	Low	Moderate	Moderate	\$0
Wildfire	Low	Low	Low	Low	\$0

Key risk findings identified by the Village of Nassau JAT as representing the highest local priorities for mitigation are:

- Existing stone retaining wall at Chatham Street (NYS Route 203) has broken down and allows an unnamed creek to go into other areas, including the ROUSE senior housing facility. In the past, floodwaters have encroached upon the housing facility's parking lot, and on occasion the building has had to be evacuated.
- An early warning system will allow for rapid and efficient notification of residents in affected areas to ensure their safety and welfare. The Village has established an email notification system for Village residents for emergency information dissemination. However, there is no direct connection to the other emergency agencies (NFPD, Nassau

⁹ Source: NOAA NCEI, except as noted. \$0 in average annualized losses had no damages recorded for events between 1996 and 2018. Actual annual damages are unquantifiable but higher.

Hose, etc.). Those connections remain to be established. Current system does not connect with emergency agencies so is of limited value.

- Drainage from the Sutherland School on John Street pools in the yards at the base of the hill along Albany Avenue (NYS Route 23), particularly the house at 23 Albany Avenue, and on some occasions has flooded Albany Avenue itself.
- The property at 37 Albany Avenue (where the Valatie Kill crosses under Albany Avenue) floods during periods of heavy rain due to the creek’s lower carrying capacity as a result of siltation. Floodwaters regularly impact the property and have entered the house in the past.
- The property at 34 Tremont Drive floods during periods of heavy rain and spring melt due to a poorly designed drainage channel which funnels water flow off the hill to the east. Floodwaters regularly impact the neighboring properties (30 Tremont, 4 Tremont) as well as flood Tremont Drive itself.
- Residents could benefit from additional information on hazards, risks, and hazard mitigation measures they can take on their own properties to reduce damages and improve resident safety before, during and after a hazard event.

Mitigation projects to address these key risks are included as part of the Village’s overall hazard mitigation strategy.

8.11.9 OUTREACH TO THE PUBLIC AND OTHER STAKEHOLDERS

As part of this 2019 Plan Update, the Village of Nassau undertook various activities to: (a) alert the public and other stakeholders to the fact that the HMP Planning Committee was working to develop the update; and (b) provide the public and other stakeholders with a forum to ask questions and submit comments and suggestions on the process. Outreach activities undertaken by the Village included:

Outreach Activities			
DATE OF ACTIVITY	TYPE OF ACTIVITY	ACTIVITY DETAILS	LEAD DEPARTMENT AND/OR STAFF TITLE WHO UNDERTOOK ACTIVITY
[2/13/2019 3/13/2019 4/10/2019 5/8/2019 6/12/2019]	[Village Board monthly meeting – public meeting]	[Discussion of plan update, update on Village contribution to the plan; progress report on work to date]	[Mayor, Board of Trustees]
[2/28/2019 3/29/2019 4/30/2019 5/31/2019 6/21/2019]	[Public outreach – Village website]	[Web page added to Village website describing the effort to update the County hazard mitigation plan, updated monthly]	[Board of Trustees, Village Clerk]
[2/18/2019]	[Public outreach]	[Posted Plan Update Fact Sheet at various locations within the Village]	[Village Clerk]
[6/21/2019]	[Public Outreach – Village website]	[Added Village contribution to the mitigation plan webpage referenced above.]	[Village Clerk]

The Village of Nassau received no comments as a result of its outreach activities.

8.11.10 CAPABILITY ASSESSMENT

This section describes the following capabilities of the local jurisdiction:

- Legal and regulatory capability;
- Administrative and technical capability;
- Fiscal capability;
- Community resiliency;
- Community political capability; and
- Community classification.

8.11.10.1 Legal and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Nassau. The Village reviewed its responses from the 2011 HMP and has updated its prior feedback to reflect present-day conditions.

Legal and Regulatory Capability			
Regulatory Tools (Codes, Ordinances, Plans)	Do you have this? (Y or N)	Enforcement Authority	Code Citation (Section, Paragraph, Page Number, Date of Adoption)
a. Building code	N	N.Y.S. Building Code	N.Y.S. Building Code
b. Zoning ordinance	Y	Village of Nassau	Village Code Chapter 120, 2/13/2019
c. Subdivision ordinance or regulations	N		
d. Special purpose ordinances (floodplain management, stormwater management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	Y	Village of Nassau	Village Code Chapter 64, 7/8/1992 Chapter 120, 2/13/2019
e. Growth management ordinances (also called "smart growth" or anti-sprawl programs)	N		
f. Site plan review requirements	Y	Village of Nassau	Village Code Chapter 120, 2/13/2019
g. General, comprehensive or master plan	Y	Village of Nassau	9/2016
h. A capital improvements plan	Y	Village of Nassau	
i. An economic development plan	N		
j. An emergency response plan	Y	Village of Nassau	10/2010
k. A post-disaster recovery plan	N		
l. A post-disaster recovery ordinance	N		

Legal and Regulatory Capability			
Regulatory Tools (Codes, Ordinances, Plans)	Do you have this? (Y or N)	Enforcement Authority	Code Citation (Section, Paragraph, Page Number, Date of Adoption)
m. Real estate disclosure requirements	N		
n. Other			

8.11.10.2 Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Nassau. The Village reviewed its responses from the 2011 HMP and has updated its prior feedback to reflect present-day conditions.

Administrative and Technical Capability		
Staff / Personnel Resources	Available (Y or N)	Department / Agency / Position
a. Planner(s) or engineer(s) with knowledge of land development and land management practices	Y	Community Planning & Environmental Associates
b. Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	N	Contracted as needed
c. Planners or Engineer(s) with an understanding of natural and/or human-caused hazards	Y	Community Planning & Environmental Associates
d. Floodplain manager	Y*	Building Inspector
e. Surveyors	N	
f. Staff with education or expertise to assess the community's vulnerability to hazards	N	
g. Personnel skilled in GIS and/or HAZUS	N	
h. Scientists familiar with the hazards of the community	N	
i. Emergency manager	N	
j. Grant writers	N	
k. Staff with expertise or training in benefit/cost analysis	N	
*All communities participate in the National Flood Insurance Program; as such, they are required by the regulations to have an appointed floodplain manager.		

8.11.10.3 Fiscal Capability

The table below summarizes financial resources available to the Village of Nassau. The Village reviewed its responses from the 2011 HMP and has updated its prior feedback to reflect present-day conditions.

Fiscal Capability	
Financial Resources	Accessible or Eligible to use (Yes/No/Don't know)
a. Community Development Block Grants (CDBG)	No
b. Capital improvements project funding	Yes
c. Authority to levy taxes for specific purposes	Yes
d. Fees for water, sewer, gas, or electric service	Yes
e. Impact fees for homebuyers or developers for new developments/homes	No
f. Incur debt through general obligation bonds	Yes
g. Incur debt through special tax and revenue bonds	Yes
h. Incur debt through private activity bonds	No
i. Withhold spending in hazard-prone areas	No
j. State mitigation grant programs	No
k. Other	

8.11.10.4 Overall Capabilities

The Village of Nassau's 2019 assessment of its overall capabilities to implement hazard mitigation strategies in each of the above categories, in addition to their local assessment of how these capabilities could be expanded and/or improved to reduce risk, is presented in the table below.

Overall Capabilities				
Overall legal and regulatory capability to implement hazard mitigation strategies	Overall technical capability to implement hazard mitigation strategies	Overall fiscal capability to implement hazard mitigation strategies	Overall administrative capability to implement hazard mitigation strategies	Community's willingness to enact policies and programs that reduce hazard vulnerabilities
Moderate	Moderate	Moderate	High	High
How these capabilities can be expanded and/or improved to reduce risk:				
<p>Legal/regulatory capability: ensure that our existing law regulating the floodplain meets current standard (effort underway); review subdivision law (effort underway); implement regulatory items from water source protection plan (2018) recommendations.</p> <p>Technical capability: Due to the size of the Village, some of the staff required to implement hazard mitigation strategies (e.g., engineers, planners, surveyors, scientists, grant writers, etc.), are not employees, but rather are contracted on an as-needed basis.</p> <p>Fiscal capability: while the Village is not financial stressed for the time being, there are limited unrestricted funds to implement hazard mitigation strategies.</p>				

8.11.10.5 Community Classifications

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

Community Classifications		
Program	Classification	Date Classified
Community Rating System (CRS) *	NP	
Building Code Effectiveness Grading Schedule (BCEGS)	NP	
Public Protection	NP	
Storm Ready	NP	
FireWise	NP	

Notes:

- = Unavailable

N/A = Not applicable

NP = Not participating.

* CRS Ranking as of April 2019

The classifications listed above relate to the Village of Nassau's ability to provide effective services to lessen its vulnerability to the natural 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 1,000 feet of a creditable fire hydrant and is within five 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 <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National FireWise Communities website at <http://firewise.org/>

8.11.11 PLAN FOR DISPLACED RESIDENTS

New York State requires that intermediate and long-term housing options must be available for relocating displaced residents to maintain post-disaster social and economic stability. Intermediate and long-term housing options for displaced residents was evaluated as part of the 2019 HMP Update. Additional information can be found in Appendix C.

8.11.12 PLAN FOR EVACUATION NEEDS AND SHELTERING

The Village of Nassau has an emergency response plan¹⁰. It does not have a post-disaster recovery plan or a post-disaster recovery ordinance¹¹. Rensselaer County has an existing Comprehensive Emergency Management Plan (CEMP) documenting the County's plan for evacuation and sheltering measures during hazard events. The Plan is posted online at: <http://www.rensco.com/wp-content/uploads/2019/07/Rensselaer-County-CEMP.pdf>. As part of this hazard mitigation plan update, the Rensselaer County reviewed their existing CEMP and determined that updates were necessary at this time. Updates to the CEMP are being completed at this time. Once finalized and approved, the County will post the updated CEMP at the same address and will follow procedures in its updated CEMP in all future disasters. The County BPS indicated that there are no designated evacuation routes.

Appendix B contains updated shelter data provided by the Red Cross in 2018. Shelter locations are not made public until facilities are actually opened for an event and therefore, pages of Appendix B that include shelter information are nonpublic. Since every possible

¹⁰ Source: Local Capability Assessment

¹¹ Source: Local Capability Assessment

shelter is not opened during every event, the data is not made public in order to ensure that individuals in need of shelter do not seek it at facilities which may remain closed during a particular event. The Village of Nassau has access to shelter data and will coordinate with the Red Cross as part of their standard operating procedures if and when a need is identified for local shelters to be opened in the community.

8.11.13 FUTURE NEEDS - RISK/VULNERABILITY

The Village of Nassau has identified no future needs to better understand risk/vulnerability in the community. (otherwise, explain what community identifies)

8.11.14 PLAN INTEGRATION

For a community to succeed in reducing risk in the long term, the information and recommendations of the hazard mitigation plan must be integrated into day-to-day local government operations. Throughout the planning process, partnerships are formed between departments and agencies, and sustained actions between these partners will increase the community's resilience to disasters. "Plan integration" can be thought of as the process whereby a local government incorporates the mitigation plan findings and projects into other planning mechanisms (governance structures that are used to manage local land use development and community decision making).

It is the intention of the Village of Nassau to incorporate mitigation planning as an integral component of daily municipal operations. The balance of this subsection describes local accomplishments over the last planning cycle (2011-2019), and targeted activities for the next planning cycle (2019-2024).

Demonstration of Progress over the Last Planning Cycle (2011-2019) – The Village of Nassau undertook the following plan integration mechanisms over the last planning cycle:

- The master, general or comprehensive was updated since 2011. Natural hazard risk/mitigation was incorporated into the updated document Concerns around stormwater management, floodplains, wetlands, and development were highlighted and goals, objectives, and recommendations included in the plan. Areas historically prone to flooding were identified, mapped, and displayed in the plan.
- Coordinated with the building department (via meeting with the code enforcement officer) to ensure that they have adopted and are enforcing the minimum standards established in the current State-adopted IBC. Building inspector and code enforcement staff are required to maintain up to date knowledge of State-adopted IBC. Village code requires that construction follow current state adopted IBC.
- Community currently has a local zoning ordinance.]
- Modified the local comprehensive plan to add a hazard element. Concerns around stormwater management, floodplains, wetlands, and development were

highlighted and goals, objectives, and recommendations included in the plan. Areas historically prone to flooding were identified, mapped, and displayed in the plan.

- Reached out to partner groups in the community (i.e., nonprofit organizations, businesses, etc.) to identify those who may be willing to donate goods or services and create a database of contact information and indicated goods/services. [County-wide equipment pool. Regularly meet with the Nassau Chiefs Association, includes representatives from Fire, EMS, Police, as well as the Town and Village governments to assess availability of equipment, personnel, and other items in the event of an emergency.]

Targeted Plan Integration Activities for the Next Planning Cycle (2019-2024) – The Village of Nassau plans to implement the following plan integration mechanisms into local government operations from this point forward through the next planning cycle:

- Issue a letter to each department head to solicit their support and explore opportunities for further integration of hazard mitigation into the daily activities of the community as a whole.
- Adopt and enforce the minimum building standards established in the current State-adopted IBC (NY edition).
- Maintain community participation in FEMA's National Flood Insurance Program.
- Steer growth and development away from high risk locations by using the risk assessment from the hazard mitigation plan as a tool to monitor future updates of community land use plans, zoning and subdivision codes and the development review process.
- Modify work plans, policies or procedures to include hazard mitigation concepts/activities.
- Issue directives to require departments/agencies in the community to carry out certain hazard mitigation activities.
- Require the Department of Public Works to inspect and clean debris from streams and ditches more frequently.
- Implement hazard mitigation activities through existing plans and policies.
- Sponsor training on best practices for hazard mitigation for local government staff. (Note: this may be accomplished with other local governments.)

8.11.15 MITIGATION STRATEGY

This subsection sets forth the mitigation strategy for the Village of Nassau. It describes:

- Progress on 2011 HMP Initiatives
- Past Mitigation Accomplishments
- Proposed 2019 HMP Mitigation Initiatives
- Action Worksheets

8.11.15.1 Progress on 2011 HMP Initiatives

The following table was completed by the Village of Nassau HMP Committee Members. It summarizes the progress that was made on the local hazard mitigation initiatives that were set forth in the community's mitigation strategy from the initial HMP in 2011.

Generally, local priorities have not changed since the last version of the plan. Unfortunately, due to a change in administration in the Village, many of the previously identified items were never initiated. Moreover, the transition to new administrations has been somewhat adversarial and priorities around hazard mitigation were not communicated effectively.

PROGRESS ON 2011 HAZARD MITIGATION PLAN INITIATIVES												
2011 HMP Initiative Number	Mitigation Initiative Description	2011 HMP Priority	Hazard(s) Mitigated	Lead and Support Agencies	Status				Status Details	Relevance		Relevance Details
					Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated		Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	
NV-1	Chatham Street (NYS Route 203) Flood Protection Project. Existing stone retaining wall has broken down and allows an unnamed creek to go into other areas, including the ROUSE senior housing facility. In the past, floodwaters have encroached upon the housing facility's parking lot, and on one occasion the building had to be evacuated. The project will be to work with NYSDOT and ROUSE to ensure that the deteriorated retaining wall is rebuilt and undertake any necessary drainage improvements are implemented to keep the creek confined. This will also benefit emergency response, as Nassau Hose is located further north on this main route through the Village.	1	Flooding	Village Board members to coordinate with NYS DOT and ROUSE who would ultimately undertake the project, as the Village does not have direct authority to undertake a project on this State route.				X	Project not initiated due to lack of political support, staff availability, and change in administration.	X		Will be carried forward with no changes.
NV-2	23 Albany Avenue (NYS Route 20) Drainage Improvement Project. Drainage from the Sutherland School on John Street pools in the yards at the base of the hill along Albany Avenue (NYS Route 23), particularly the house at 23 Albany Avenue, and on some occasions has flooded Albany Avenue itself. The project will be to work with NYSDOT, the school, and homeowner to ensure that drainage improvements are undertaken to better carry the water under Albany Avenue north to the Valatie Kill.	2	Flooding	Village Board members to coordinate with NYS DOT (and the D.P. Sutherland school and the home owner) who would ultimately undertake the project, as the Village does not have direct authority to undertake a project on this State route or private residence.				X	Project not initiated due to lack of political support, staff availability, and change in administration.	X		No change.
NV-3	37 Albany Avenue (NYS Route 20) Channel Improvements. The property at 37 Albany Avenue (where the Valatie Kill crosses under Albany Avenue) floods during periods of heavy rain due to the creek's lower carrying capacity as a result of siltation. Floodwaters regularly impact the property and have entered the house in the past. The project will be to undertake channel improvements on the creek in order to carry the water under Albany Avenue without backing up onto the property at 37 Albany Avenue.	3	Flooding	Village Board members to coordinate with NYS DOT and ROUSE who would ultimately undertake the project, as the Village does not have direct authority to undertake a project on this State route or private residence.				X	Project not initiated due to lack of political support, staff availability, and change in administration.	X		Will be carried forward with no changes.
NV-4	Early Warning System. An early warning system will allow for rapid and efficient notification of residents in affected areas to ensure their safety and welfare.	4	All hazards	In conjunction with Nassau Fire Protection District; Nassau Hose Co.		X			The Village has established an email notification system for Village residents for emergency information dissemination. However, there is no direct connection to the other emergency agencies (NFPD, Nassau Hose, etc.). Those connections remain to be established.	X		Will be carried forward with no changes.
NV-5	Backup Generator for Water Department. The Village water department has only one pump station. This supplies water to the entire village, as well as 15 outlying properties which have Village water. The project will be to install a backup generator for the pump station.	5	Winter storm and wind events	Village Water Commissioner	X				Project completed in 2014.		x	Project completed in 2014.

PROGRESS ON 2011 HAZARD MITIGATION PLAN INITIATIVES												
2011 HMP Initiative Number	Mitigation Initiative Description	2011 HMP Priority	Hazard(s) Mitigated	Lead and Support Agencies	Status				Status Details	Relevance		Relevance Details
					Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated		Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	
NV-CL-1	Public awareness program on Hazards, Prevention, and Mitigation: County will maintain a hazard mitigation and mitigation planning web presence (local municipal web sites to link up to this site, if they haven't already done so); all participating jurisdictions to support preparation of a joint annual hazard mitigation and mitigation planning fact sheet and its distribution; 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 each jurisdiction (incorporating as much free information as possible from the FEMA Publications Warehouse and other appropriate sources). (public education)	High	All hazards	County-led action item. CPG Member, Village Trustee			x		Village included materials related to hazard mitigation on its website as well as made materials available at Village Hall. Periodic discussions of the threat of natural disasters/hazards take place at Village Board meetings. Building inspector/code enforcement regularly discuss these issues with residents who bring building permit applications for approval. Planning Board has included hazard mitigation elements to its site plan review procedures.	x		County is carrying forward this County-led activity with no changes; our municipality will carry it forward as well.
NV-CL-2	Code update: Review existing local codes and ordinances against the identified hazards to determine whether there need to be any amendments to address identified hazards and, where a need is identified, modify/amend the codes/ordinances as applicable. (prevention)	Medium	All hazards	County-led action item. CPG Member, Village Trustee			x		Modified code: Chapter 120 (Zoning), 2/13/2019; County did review the modified law prior to Village Board adoption.	x		County is carrying forward this County-led activity with no changes; our municipality will carry it forward as well.
NV-CL-3	Code enforcement: Enforcement of NYS and Local Building Codes with Continual CEO training. (prevention)	Medium	All hazards	County-led action item. CPG Member, Village Trustee			x		Locally administered on an ongoing basis; our community did not have a need to go to the county for support/training.	x		County is carrying forward this County-led activity with no changes; our municipality will carry it forward as well.
NV-CL-4	Ensure that local comprehensive plans incorporate natural disaster mitigation techniques through a courtesy review of draft plans by the County Planning Department (prevention)	High	All hazards	County-led action item. CPG Member, Village Trustee			x		Village updated its comprehensive plan in September 2016. The plan included discussion of natural disaster mitigation with regard to areas historically prone to flooding and potential mitigations, as well as protection of the Village's water source and water system generally. The updated plan was reviewed by County Planning prior to adoption.	x		County is carrying forward this County-led activity with no changes; our municipality will carry it forward as well.
NV-CL-5	Hold periodic workshops for municipalities regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation.(prevention)	Low	All hazards	County-led action item. CPG Member, Village Trustee			x		County- led activity. Municipality attends meetings/workshops as offered by the County whenever municipal staff members have schedule availability.	x		County is carrying forward this County-led activity with no changes; our municipality will carry it forward as well.
NV-NFIP-1	Update/revise floodplain management ordinance to comply with latest FEMA regulations.	1	Flooding	Building Department			x		Ordinance is dated 1992. Not updated because lack of awareness of need to update due to turnover in municipal administration.	x		Ongoing type of activity; will be carried forward with no changes.
NV-NFIP-4	Update/revise floodplain management ordinance to be consistent with potential future new FIRMs	2	Flooding	Building Department			x		FEMA has not issued new FIRMs since the last hazard mitigation plan was prepared.	x		Ongoing type of activity; will be carried forward with no changes.

PROGRESS ON 2011 HAZARD MITIGATION PLAN INITIATIVES												
2011 HMP Initiative Number	Mitigation Initiative Description	2011 HMP Priority	Hazard(s) Mitigated	Lead and Support Agencies	Status				Status Details	Relevance		Relevance Details
					Completed	Initiated but Not Completed	Ongoing Type of Activity	Not Initiated		Still Relevant - Carry Forward to Updated Mitigation Strategy	No Longer Relevant - Omit from Updated Mitigation Strategy	
NV-NFIP-6	Join the Community Rating System (CRS)	3	Flooding	Building Department				x	Municipality opted not to enter CRS.		x	Municipality reconsidered in 2019 and opted not to initiate the process.

8.11.15.2 Past Mitigation Accomplishments

NYS DHSES requires the documentation of local mitigation efforts and accomplishments since the previous hazard mitigation plan was prepared, regardless of funding source and regardless of whether the project was included in the prior plan. They note that the goal of this requirement is to provide a context for each jurisdiction's projects, act as a source of ideas for mitigation projects, and evaluate the accuracy of assumptions and engineering solutions to inform future projects, and to support future mitigation planning and its coordination with other planning, zoning, and environmental procedures within the jurisdiction.

The following table summarizes past mitigation accomplishments for the Village of Nassau, from the time the 2011 HMP was approved through its first update in 2019.

Past Mitigation Accomplishments					
Project Number	Project Name	Hazard(s) Addressed	Brief Summary of the Original Problem and the Solution (Project)	Evaluation of Success	
1	Catch-basin maintenance	Flooding	Flooding and road closures at various points Village-wide during strong storms/heavy precipitation due to infrequent catch-basin maintenance. Solution involved establishing a regular schedule for catch-basin cleaning and a periodic deep-cleaning through a third-party vendor.	Cost	\$0 ongoing, \$2,500 per deep-cleaning.
				Level of Protection	High
				Damages Avoided; Evidence of Success	No instances of significant flooding due to clogged catch-basins since public works department awareness raised and maintenance schedule established.
2	Pump house relocation and upgrade	Winter storms, wind, flooding	Pump house was located underground and deteriorating due to lack of ventilation, constant condensation, lack of regular maintenance. A new location for the pump house was found and a new pump house constructed in 2014.	Cost	\$15,000
				Level of Protection	High
				Damages Avoided; Evidence of Success	Pump house is not protected from the elements, especially flooding and loss of power due to harsh winter storms and high wind events.
3	Source water protection plan	All hazards	Wells supplying water to all Village residents and approximately 20 properties outside the Village potentially at risk of aquifer contamination. Village Water Commissioner and resident committee worked with Rural Water Authority to develop water source protection plan.	Cost	\$0
				Level of Protection	High
				Damages Avoided; Evidence of Success	Plan was adopted by the Village Board in 2018. Implementation of the plan has begun.

8.11.15.3 Proposed 2019 HMP Mitigation Initiatives

The process for selection and prioritization of mitigation actions is described in greater detail in Section 5 of the main text. The outcomes of that overall process are summarized here.

This plan proposes the actions determined to be the most appropriate for the resources and capabilities of the community based on the experience of local officials, with input from the public and other stakeholders. The relatively large number of flood mitigation actions reflects the fact that flooding is the hazard of greatest concern. Actions determined to be appropriate for the plan were reviewed during public and committee meetings and there was consensus that those intended to mitigate the effects of flooding should be the highest priorities for most communities. As with the 2011 Plan, this 2019 Plan Update includes a series of County-led initiatives with municipal participation to address a wider range of hazards. In addition, each local mitigation strategy proposes actions reflecting the commitment of the County and local jurisdictions to compliance with requirements of the NFIP. Potential actions were reviewed relative to potential financial as well as administrative and legal costs and the degree to which they would be endorsed by the public. Potential actions were reviewed during the meetings relative to their potential benefit of effectiveness in saving lives, protecting the natural environment, and reducing disruption and damage. Actions selected by each jurisdiction include activities to protect existing and future structures and infrastructure and enhance community resilience.

Part of enhancing community resilience involves adapting to a changing climate. In accordance with NYS Mitigation Planning Standard 9, plans developed with NYS DHSES-administered funds must include information on climate change as part of the hazard vulnerability analysis and contain strategies/projects to address increased vulnerability that may result from climate change. This requirement was established to encourage jurisdictions to plan for and accommodate climate change and sea level rise. By developing mitigating strategies and/or projects for hazards that are exacerbated by climate change, jurisdictions will better protect residents, avoid, or reduce damage to property and public infrastructure, and reduce personal hardship. In accordance with this State Standard, previous sections of this plan have presented information on how climate change may affect jurisdictional vulnerability or increased frequency of occurrence and/or severity in exposure to flooding, wildfire, drought, and extreme temperatures. Climate change is addressed by mitigating the various hazards that it exacerbates. Rensselaer County and its communities have proposed a range of hazard mitigation initiatives to address their highest hazards including those hazards that are exacerbated by a changing climate.

Proposed 2019 HMP Mitigation Initiatives for Village of Nassau are shown in the following table. These include both new initiatives and initiatives that were carried forward from the 2011 HMP.

PROPOSED 2019 HMP MITIGATION INITIATIVES													
Initiative Number	Initiative Name	HMP Goal(s)/ Objective(s) Being Met	Hazard(s) to be Mitigated	Description of the Problem	Description of the Solution	CF ¹² ?	EHP ¹³ Issues?	Estimated Timeline	Project Lead (include relevant Department and Position Title)	Estimated Costs	Estimated Benefits	Potential Funding Sources ¹⁴	Priority ¹⁵
* NOTE: Projects related to Critical Facilities (CF) must protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
1	Chatham St (NYS Route 203) Flood Protection Project (2011 NV-1)	3,4	Flooding	Existing stone retaining wall has broken down and allows an unnamed creek to go into other areas, including the ROUSE senior housing facility. In the past, floodwaters have encroached upon the housing facility's parking lot, and on occasion the building has had to be evacuated.	The project will be to work with NYSDOT and ROUSE to ensure that the deteriorated retaining wall is rebuilt and undertake any necessary drainage improvements to keep the creek confined.	N	N	1 -5 years	Village Board members to coordinate with NYS DOT and ROUSE who would ultimately undertake the project, as the Village does not have direct authority to undertake a project on this State route.	>\$100,000	Safety of residents and property at the ROUSE senior housing. This will also benefit emergency response, as Nassau Hose is located further north on this main route through the Village.	Local budget, FEMA PDM, FEMA HMGP	H
2	23 Albany Avenue Drainage Improvement Project (2011 NV-2)	3,4	Flooding	Drainage from the Sutherland School on John Street pools in the yards at the base of the hill along Albany Avenue (NYS Route 23), particularly the house at 23 Albany Avenue, and on some occasions has flooded Albany Avenue itself.	The project will be to work with NYSDOT, the school, and homeowner to ensure that drainage improvements are undertaken to better carry the water under Albany Avenue north to the Valatie Kill.	N	N	1 -5 years	Village Board members to coordinate with NYS DOT (and the D.P. Sutherland school and the home owner) who would ultimately undertake the project, as the Village does not have direct authority to undertake a project on this State route or private residence.	>\$100,000	Property damage mitigation. Also, Village pedestrian infrastructure will be protected from heavy ice accumulation due to pooling flood waters in the winter months.	Local budget, FEMA PDM, FEMA HMGP	M
3	37 Albany Avenue Channel Improvements Project (2011 NV-3)	3,4	Flooding	The property at 37 Albany Avenue (where the Valatie Kill crosses under Albany Avenue) floods during periods of heavy rain due to the creek's lower carrying capacity as a result of siltation. Floodwaters regularly impact the property and have entered the house in the past.	The project will be to undertake channel improvements on the creek in order to carry the water under Albany Avenue without backing up onto the property at 37 Albany Avenue.	N	Y	1 -5 years	Village Board members to coordinate with NYS DEC, DOT and the home owner who would ultimately undertake the project, as the Village does not have direct authority to undertake a project on this State route or private residence.	>\$100,000	Property damage mitigation.	Local budget, FEMA PDM, FEMA HMGP	L
4	34 Tremont Drive Drainage Improvement Project NEW	3,4	Flooding	The property at 34 Tremont Drive floods during periods of heavy rain and spring melt due to a poorly designed drainage channel which funnels water flow off the hill to the east. Floodwaters regularly impact the neighboring properties (30 Tremont, 4 Tremont) as well as flood Tremont Drive itself.	The project will be to work with Rensselaer County and the home owner to ensure that drainage improvements are undertaken to better carry away water along a swale on the west side of the property.	N	N	1 -5 years	Village Board members to coordinate with County and the home owner who would ultimately undertake the project, as the Village does not have direct authority to undertake a project on private residence.	>\$100,000	Property damage mitigation. Damage to the road infrastructure due to flooding.	Local budget, FEMA PDM, FEMA HMGP	L

¹² CF – Critical Facility. Please respond “Y” (yes) if the project’s purpose is to protect a critical facility, or “N” (no) if not.

¹³ EHP – Environmental or Historic Preservation. Please respond “Y” (yes) if the project is expected to have environmental and/or historic preservation issues, or “N” (no) if not.

¹⁴ Potential Funding Sources – A list of Federal and State sources of funding for hazard mitigation projects can be found in the latest NYS Hazard Mitigation Plan online at <https://mitigateny.avilabs.org/capabilities/administerfunding>. Jurisdictions should identify additional funding opportunities you may be aware of that are not on the state list.

¹⁵ Priority – See “Prioritization Methodology” on the next page.

PROPOSED 2019 HMP MITIGATION INITIATIVES													
Initiative Number	Initiative Name	HMP Goal(s)/ Objective(s) Being Met	Hazard(s) to be Mitigated	Description of the Problem	Description of the Solution	CF ¹² ?	EHP ¹³ Issues?	Estimated Timeline	Project Lead (include relevant Department and Position Title)	Estimated Costs	Estimated Benefits	Potential Funding Sources ¹⁴	Priority ¹⁵
* NOTE: Projects related to Critical Facilities (CF) must protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
5	Early warning system (2011 NV-4)	2	All Hazards	An early warning system will allow for rapid and efficient notification of residents in affected areas to ensure their safety and welfare.	The Village has established an email notification system for Village residents for emergency information dissemination. However, there is no direct connection to the other emergency agencies (NFPD, Nassau Hose, etc.). Those connections remain to be established.	N	N	1 year	Village Board members to coordinate with other area emergency agencies.	< \$10,000	Better communication with effected residents leading up to and during an emergency.	Local budget, FEMA IPAWS, FEMA PDM, FEMA HMGP	H
6	Participate in County-Led Hazard Mitigation Outreach (2011 NV-CL-1)	1	All hazards	Residents could benefit from additional information on hazards, risks, and hazard mitigation measures they can take on their own properties to reduce damages and improve resident safety before, during and after a hazard event.	Public awareness program on Hazards, Prevention, and Mitigation: County will maintain a hazard mitigation and mitigation planning web presence (local municipal web sites to link up to this site, if they haven't already done so); all participating jurisdictions to support preparation of a joint annual hazard mitigation and mitigation planning fact sheet and its distribution; 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 each jurisdiction (incorporating as much free information as possible from the FEMA Publications Warehouse and other appropriate sources). (public education)	No	No	5 years	County-led action item. CPG Member, Village Trustee	None	Increase public awareness	Local	High
7	Request code/ordinance review by Count as needed (2011 NV-CL-2)	4	All hazards	Communities are safer and more resilient when new construction and substantial improvements take into account the latest information on hazard vulnerabilities and measures to reduce risk.	Code update: Review existing local codes and ordinances against the identified hazards to determine whether there need to be any amendments to address identified hazards and, where a need is identified, modify/amend the codes/ordinances as applicable. (prevention)	No	No	5 years	County-led action item. CPG Member, Village Trustee	None	Safer community	Local	Medium
8	Send CEO to County-Led Training (2011 MV-CL-3)	2	All hazards	There can be a loss of institutional knowledge with staff changes. Even when staff is the same, continual training improves local capabilities and allows officials to better regulate activities in hazard areas to protect lives and property.	Code enforcement: Enforcement of NYS and Local Building Codes with Continual CEO training. (prevention)	No	No	5 years	County-led action item. CPG Member, Village Trustee	None	Continued education will benefit the town residents	Local	Medium

PROPOSED 2019 HMP MITIGATION INITIATIVES													
Initiative Number	Initiative Name	HMP Goal(s)/ Objective(s) Being Met	Hazard(s) to be Mitigated	Description of the Problem	Description of the Solution	CF ¹² ?	EHP ¹³ Issues?	Estimated Timeline	Project Lead (include relevant Department and Position Title)	Estimated Costs	Estimated Benefits	Potential Funding Sources ¹⁴	Priority ¹⁵
* NOTE: Projects related to Critical Facilities (CF) must protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
9	Send Comprehensive Plan Update to County for Review by County Planning (2011 NV-CL-4)	2,3,4	All hazards	A long term vision for the community that doesn't take into account hazard areas can put lives and property at risk. Taking into account natural hazards and hazard mitigation measures can make the community more resilient.	Ensure that local comprehensive plans incorporate natural disaster mitigation techniques through a courtesy review of draft plans by the County Planning Department (prevention)	No	No	5 years	County-led action item. CPG Member, Village Trustee	None	Keep town looking to the future	Local	High
10	Attend County-Led Workshops on Natural Hazards and Hazard Mitigation (2011 NV-CL-5)	2,4	All hazards	When municipal staff aren't armed with information on zoning and planning issues that sometimes arise regarding natural hazards and hazard mitigation, they may make decisions that don't foster community resiliency.	Hold periodic workshops for municipalities regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation. (prevention)	No	No	Ongoing	County-led action item. CPG Member, Village Trustee	None	Keep zoning and planning boards abreast of changes	Local	Low
11	Update Floodplain Management Ordinance per New FEMA Regulations (as needed) (2011 NV-NFIP-1)	3,4	Flooding	Outdated ordinances mean that a community is not regulating to the latest codes and standards or hazard information, and that does not foster community resiliency.	Update/revise floodplain management ordinance to comply with latest FEMA regulations.	No	No	Ongoing	Building Department	None	Compliance may lead to additional funding to resolve issues	Local	High
12	Update Floodplain Management Ordinance when New FIRMs are Issued (2011 NV-NFIP-4)	3,4	Flooding	Outdated ordinances mean that a community is not regulating to the latest codes and standards or hazard information, and that does not foster community resiliency.	Update/revise floodplain management ordinance to be consistent with potential future new FIRMs	No	No	Ongoing	Building Department	None	Protection for the town and residents	Local	High

Prioritization Methodology for Proposed 2019 HMP Mitigation Initiatives

To prioritize its mitigation initiatives, the community established a methodology to take into account several key factors. Priorities were determined by a qualitative prioritization process established by the community. A higher priority was assigned to projects where: the life/safety risk of taking no action was deemed to be unacceptably high; the project addresses one of the community's highest hazards and/or key risks; benefits were projected to equal or exceed project costs; critical facilities or key local assets were being protected; funding and staff resources were deemed to be sufficient and/or accessible for project implementation; negative impacts were not anticipated on environmental and/or historic resources or any segment of the population; and/or where there was overall support for the project from the local community (government officials, public, and stakeholders).

PRIORITIZATION METHODOLOGY FOR PROPOSED 2019 HMP MITIGATION INITIATIVES														Priority
Initiative Number	Initiative Name	Hazard(s) Addressed	Is the life/safety risk of taking no action deemed to be unacceptably high?	Does the project address one of the community's highest hazards and/or key risks?	Benefits	Costs	Are the project's benefits estimated to equal or exceed its costs?	Are critical facilities or key local assets being protected by the project?	Are funding resources sufficient and/or accessible for project implementation?	Are staff resources sufficient or available for project implementation?	Are negative impacts anticipated on environmental resources?	Are negative impacts anticipated on historic resources?	Are negative impacts anticipated on any segment of the population?	
1	Chatham St (NYS Route 203) Flood Protection Project (2011 NV-1)	Flooding	L	M	M	H	M	L	L	H	M	H	M	H
2	23 Albany Avenue Drainage Improvement Project (2011 NV-2)	Flooding	L	M	M	H	M	L	L	H	H	H	M	M
3	37 Albany Avenue Channel Improvements Project (2011 NV-3)	Flooding	L	M	L	H	M	L	L	H	L	H	M	L
4	34 Tremont Drive Drainage Improvement Project NEW	Flooding	L	M	M	M	M	L	L	H	H	H	M	L
5	Early warning system (2011 NV-4)	All Hazards	L	H	M	M	M	L	L	L	H	H	M	H
6	Participate in County-Led Hazard Mitigation Outreach (2011 NV-CL-1)	All hazards	L	L	M	H	M	L	M	M	H	H	H	H
7	Request code/ordinance review by County as needed (2011 NV-CL-2)	All hazards	L	L	L	H	M	L	M	H	H	H	H	M
8	Send CEO to County-Led Training (2011 MV-CL-3)	All hazards	L	L	M	H	M	L	M	H	H	H	H	M
9	Send Comprehensive Plan Update to County for Review by County Planning (2011 NV-CL-4)	All hazards	L	L	L	H	M	L	M	H	H	H	H	H
10	Attend County-Led Workshops on Natural Hazards and Hazard Mitigation (2011 NV-CL-5)	All hazards	L	L	M	H	M	L	M	M	H	H	H	L
11	Update Floodplain Management Ordinance per New FEMA Regulations (as needed) (2011 NV-NFIP-1)	Flooding	L	M	M	M	M	L	L	L	H	H	H	H
12	Update Floodplain Management Ordinance when New FIRMs are Issued (2011 NV-NFIP-4)	Flooding	L	M	M	M	M	L	L	L	H	H	H	H

Action Worksheets

NYS DHSES State Standard 7 recommends that further consideration be given to all proposed actions by completing a NYS DHSES Action Worksheet, the State requires completion of a minimum of two NYS DHSES Action Worksheets for the jurisdiction's highest priority projects. Furthermore, for jurisdictions containing a Special Flood Hazard Area, at least one of these Action Worksheets must be for a project that addresses flooding.

Action Worksheets prepared by the Village of Nassau are included on the following pages.

Section 8.11 - Jurisdictional Annex, Village of Nassau

NYS DHSES Action Worksheet			
Project Name:	Chatham St (NYS Route 203) Flood Protection Project		
Project Number:	1 (2011 NV-1)		
Risk / Vulnerability			
Hazard of Concern:	Flooding		
Description of the Problem:	Existing stone retaining wall has broken down, and allows an unnamed creek to go into other areas, including the ROUSE senior housing facility. In the past, floodwaters have encroached upon the housing facility's parking lot, and on occasion the building has had to be evacuated.		
Action or Project Intended for Implementation			
Description of the Solution:	The project will be to work with NYSDOT and ROUSE to ensure that the deteriorated retaining wall is rebuilt and undertake any necessary drainage improvements are implemented to keep the creek confined.		
Is this project related to a Critical Facility?	Yes * <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
* Projects related to critical facilities must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.			
Level of Protection:	High	Estimated Benefits (losses avoided):	Safety of residents and property at the ROUSE senior housing. This will also benefit emergency response, as Nassau Hose is located further north on this main route through the Village.
Useful Life:	20 years		
Estimated Cost:	> \$100,000		
Plan for Implementation			
Prioritization:	H	Desired Timeframe for Implementation:	Next 24 months
Estimated Time Required for Project Implementation:	1 - 5 years	Potential Funding Sources:	Local budget, FEMA PDM, FEMA HMGP
Responsible Party: (Department/ Organization)	Village Board members to coordinate with NYS DOT and ROUSE who would ultimately undertake the project, as the Village does not have direct authority to undertake a project on this State route.	Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Not acceptable
	Rebuild retaining wall	> \$100,000	Best choice
	Re-direct/Divert creek	> \$100,000	Potential environmental damage unacceptable
Progress Report (this section to be completed at next plan update-do not fill in now)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Section 8.11 - Jurisdictional Annex, Village of Nassau

NYS DHSES Action Worksheet			
Project Name:	Early warning system		
Project Number:	5 (2011 NV-4)		
Risk / Vulnerability			
Hazard of Concern:	All Hazards		
Description of the Problem:	An early warning system will allow for rapid and efficient notification of residents in affected areas to ensure their safety and welfare.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village has established an email notification system for Village residents for emergency information dissemination. However, there is no direct connection to the other emergency agencies (NFPD, Nassau Hose, etc.). Those connections remain to be established.		
Is this project related to a Critical Facility?	Yes * <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
* Projects related to critical facilities must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.			
Level of Protection:	Medium	Estimated Benefits (losses avoided):	Better communication with effected residents leading up to and during an emergency.
Useful Life:	5 years		
Estimated Cost:	< \$10,000		
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Next 24 months
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	Local budget, FEMA IPAWS, FEMA PDM, FEMA HMGP
Responsible Party: (Department/ Organization)	Village Board members to coordinate with other area emergency agencies	Local Planning Mechanisms to be Used in Implementation, if any:	N/A
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current system does not connect with emergency agencies so is of limited value.
	Implement a third party notification system	~ \$2,000 per year	Maintenance handled by vendor, but still fails to connect to emergency agencies
	Connect current system with emergency agencies	< \$10,000	Meets goal of connecting with emergency agencies
Progress Report (this section to be completed at next plan update-do not fill in now)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			