



Village of Castleton-on-Hudson Jurisdictional Annex to the MULTIJURISDICTIONAL HAZARD MITIGATION PLAN

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Table of Contents

Village of Castleton-on-Hudson Annex	1
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Contact Information	1
Introduction	1
Jurisdiction Profile	1
Location and Land area	1
Population.....	2
Demographics	2
Brief History.....	3
Governing Body	3
Growth and Development Trends.....	4
Hazard Identification	4
Hazard Event History	7
National Flood Insurance Program (NFIP) Summary	11
Critical Facilities Information	14
Jurisdiction/Public Identified Vulnerabilities	16
Additional Public Involvement	17
Capabilities Assessment	17
Planning and Regulatory.....	18
Administrative and Technical	19
Financial	20
Education and Outreach.....	21
Opportunities to Expand and/or Improve Capabilities	22
Mitigation Strategy	23

List of Tables

Table 1: Contact Information for the Village of Castleton-on-Hudson	1
Table 2: Participants in the Hazard Mitigation Plan Update for the Village of Castleton-on-Hudson	1
Table 3: Factors in the Calculated Priority Risk Index	5

Table 4: Types of Hazard Events with Calculated Priority Risk Index for the Village of Castleton-on-Hudson 7

Table 5: Notable Hazard Events in the Village of Castleton-on-Hudson Since 2020 8

Table 6: Responses on Floodplain Management from the Village of Castleton-on-Hudson 12

Table 7: Responses on Floodplain Mapping from the Village of Castleton-on-Hudson 13

Table 8: Responses on Flood Insurance and Outreach from the Village of Castleton-on-Hudson 14

Table 9: Critical Facilities Located in the Floodplain in the Village of Castleton-on-Hudson 15

Table 10: Vulnerable Assets in the Village of Castleton-on-Hudson 16

Table 11: Outreach Activities Undertaken by the Village of Castleton-on-Hudson 17

Table 12: Planning and Regulatory Capabilities of the Village of Castleton-on-Hudson 18

Table 13: Administrative Capabilities of the Village of Castleton-on-Hudson 19

Table 14: Financial Capabilities of the Village of Castleton-on-Hudson 20

Table 15: Education and Outreach Capabilities of the Village of Castleton-on-Hudson 21

Table 16: Opportunities to Expand and/or Improve the Capabilities of the Village of Castleton-on-Hudson 22

Table 17: Status of Actions for the Village of Castleton-on-Hudson in 2019 23

Table 18: Proposed New 2025 Mitigation Actions 32

Table 19 Mitigation Action Prioritization 41

Village of Castleton-on-Hudson Annex

This is the jurisdictional annex for the Village of Castleton-on-Hudson. The jurisdiction’s governing body passed a formal resolution to participate in updating this multi-jurisdictional hazard mitigation plan (HMP). A copy of their resolution is maintained at the local government offices and at the Rensselaer County Bureau of Public Safety.

Contact Information

Table 1: Contact Information for the Village of Castleton-on-Hudson

Name	Title	Contact Information
Michael Slik	Mayor	Phone: 518-732-2211 ext. 3 Email: voctreasurer@nycap.rr.com
Padraic Ellis	Clerk-Treasurer	Not Given
Tom Burrall	Building Inspector	Not Given

Introduction

The Village of Castleton-on-Hudson has a fully integrated approach to hazard mitigation planning and program implementation. Table 2 lists the participants in the 2024 process for updating the HMP.

Table 2: Participants in the Hazard Mitigation Plan Update for the Village of Castleton-on-Hudson

Name	Title	Jurisdiction
Padraic Ellis	Clerk-Treasurer	Village of Castleton on Hudson
Tom Burrall	Building Inspector	Village of Castleton on Hudson
Michael Slik	Mayor	Castleton-on-Hudson

Jurisdiction Profile

Location and Land area

The Village of Castleton-on-Hudson is in southwest Rensselaer County, in the eastern part of New York State (NYS). It is situated in the Town of Schodack and shares a border with Albany County to the west.

In accordance with the 2020 U.S. Census, Rensselaer County covers a total area of 665 square miles (1,720 km²), of which 652 square miles (1,690 km²) are land and 13 square miles (34 km²) (1.9%) are water. The Village of Castleton-on-Hudson spans a total area of 0.71 square miles (1.85 km²), all of which is land.¹

Population

According to the Census Reporter, 2023 American Community Survey data, the population of the Village of Castleton-on-Hudson is estimated to be 1,524 persons.²

Demographics

The population includes 76.2 males per 100 females (all ages). Persons under 18 represent 19.3% of the population, and 17.4% are 65 years and over.³ Young and old subsets of the population might have unique needs regarding care requirements and potential cognitive and/or mobility limitations before, during, and after a disaster.

The portion of the population who speak a language other than English is 3.5%, of which 0.9% speak English less than "very well."⁴ People who do not speak English well might have trouble understanding instructions regarding disaster preparation, response, and recovery.

Of those 25 years and older, 91.9% are high school graduates or higher, and 27% have received their bachelor's degree or higher.⁵ 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 might not have prior direct experience preparing for, responding to, or recovering from a particular hazard in their daily lives.

In 2022, there were 626 total households and 2.22 persons per household.⁶ 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 (houses, apartments, mobile homes, rented rooms) as living in group quarters. Group quarters may be institutional (correctional facilities, nursing homes, mental hospitals) or non-institutional (college dormitories, military barracks, group homes, missions, and shelters). The Census Bureau maintains no information on group quarters 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.

¹ Census Reporter, 2025. "Census Data American Community Survey 2023 -Village of Castleton-on-the-Hudson, New York", [Castleton-on-Hudson, NY - Profile data - Census Reporter](#)

² Ibid.

³ Ibid.

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

According to the 2022 American Community Survey, the median household income was \$59,453, the per capita income in the past 12 months (2022) was \$33,761, and the percentage of people in poverty was 11%.⁷ Lower-income people 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 hazardous events.

Non-institutionalized civilians with a disability accounted for 13.4%, and people over 75 with a disability accounted for 60%. The total number of persons (civilian, non-institutionalized) without health insurance is 11%.⁸ Persons with disabilities have access and functional needs, such as cognitive or mobility limitations, that might put them at greater risk before, during, and after a hazard event.

Brief History

The area that is now Rensselaer County was inhabited by the Algonquian-speaking Mohican Indian tribe at the time of the European encounter. Kiliaen van Rensselaer, a Dutch jeweler and merchant, purchased the area in 1630 as part of the Dutch colony of 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 the 1790s from an area initially part of the extensive Albany County. In 1807, the county reorganized.⁹

The first inhabitants to live in the Castleton-on-Hudson area were the Mohican Indians. The old tradition of a Mohican village or "castle" on the hill gave Castleton-on-Hudson the first part of its name. In the 1600s, the area became part of Rensselaerswyck, a colony owned by the Van Rensselaer, who bought land from the Mohicans. New Netherland became New York in 1664, but the area retained its Dutch flavor as the site of future Castleton-on-Hudson was occupied by settlers under Van Rensselaer leases. The village's incorporation in 1827 signaled that a group of entrepreneurs were expecting Castleton-on-Hudson to grow. In 1856, Charles Benthuisen came to Castleton-on-Hudson. He started a paper mill on the grounds of what later became the Fort Orange Paper Company, which would be the mainstay of the village's economy in years to come.¹⁰

Governing Body

The municipality's governing body has a Mayor, a Deputy Mayor, and a Board of Trustees. This council serves as the municipal/local government, performing executive functions of various types. The people elect members of this governing body.

⁷ Census Reporter, 2025. "Census Data American Community Survey 2023 -Village of Castleton-on-Hudson, New York", [Castleton-on-Hudson, NY - Profile data - Census Reporter](#)

⁸ Ibid.

⁹ 2020 Rensselaer County Multi-Jurisdictional Hazard Mitigation Plan, "Village of Castleton-on-Hudson Annex Brief History"

¹⁰ Ibid.

Growth and Development Trends

Assessing growth and development trends is one step of a hazard mitigation plan update. This look into the future is essential 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.

Each participating jurisdiction evaluated growth and development trends as part of the initial plan's development in 2011 and updated in 2020. As part of this plan update, the Village of Castleton-on-Hudson reviewed and updated its prior feedback to reflect current conditions in the community as of early 2024.

The Village of Castleton-on-Hudson did not note significant residential or commercial development, or any major infrastructure development planned for the next five years in the municipality. A six-home subdivision is intended; this is a relatively substantial development given the village's small size and limited availability of land for new development. The village does not have much undeveloped land available for construction. Significant work is being done to remedy a wetland area that experiences flooding and drainage issues. Overall, the village has had minimal land development since the 2020 plan update.

The village enforces regulations, ordinances, and codes to minimize the effects of natural hazards. Critical environmental zoning regulations protect against slumping, sliding, and erosion. The critical overlay area has been designated in the Rensselaer County soil and water conservation map as type HUE (250e) soils (at least a 25% grade). The village also has flood hazard zoning regulations, as described by the Flood Hazard Boundary Map issued by FEMA.

Hazard Identification

The Calculated Priority Risk Index (CPRI) is a comprehensive assessment tool used to evaluate and prioritize risks in a given context. It considers various factors, such as probability, impact, and urgency, to determine the level of risk associated with particular events or situations. By considering these variables, the CPRI helps organizations and individuals make informed decisions about risk management and mitigation strategies. It provides a systematic approach to identifying and addressing potential issues, allowing for more efficient allocation of resources and proactive risk prevention. With the CPRI, stakeholders can prioritize their focus on the most critical risks, leading to more effective risk management and, ultimately, better outcomes. Table 2 shows the factors for calculating the CPRI.

Table 3: Factors in the Calculated Priority Risk Index

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
Probability What is the likelihood of the hazard occurring?	1	Unlikely	Less than 1% probability of occurrence in the next year or a recurrence interval of greater than every 100 years.	30%
	2	Occasional	1%–10% probability of occurrence in the next year or a recurrence interval of 11–100 years.	
	3	Likely	91%–100% probability of occurrence in the next year or a recurrence interval of less than 1 year.	
	4	Highly Likely	91%–100% percent probability of occurrence in the next year or a recurrence interval of less than 1 year.	
Potential Consequences What will be the overall impact in terms of injuries, damage, death, continuity of operations, and environmental and economic impacts?	1	Negligible	Very few injuries, if any. Only minor property damage and minimal disruption of quality of life. Temporary shutdown of critical facilities.	30%
	2	Limited	Minor injuries only. More than 10% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than one day.	
	3	Critical	Multiple deaths/injuries possible. More than 25% of property in affected area damaged or destroyed. Complete shutdown of critical facilities more than one week.	

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
	4	Catastrophic	High number of deaths/injuries possible. More than 50% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for 30 days or more.	
Warning Time How long will be there be between when it is recognized the hazard is approaching and when the hazard will begin to affect the community?	1	Self-defined	More than 24 hours	10%
	2	Self-defined	12–24 hours	
	3	Self-defined	6–12 hours	
	4	Self-defined	Less than 6 hours	
Duration What is the length of time the hazard will remain active, including how long emergency operations will need to continue after the hazard event?	1	Brief	Up to 6 hours	10%
	2	Intermediate	Up to one day	
	3	Extended	Up to one week	
	4	Prolonged	More than one week	
Spatial Extent How large of an area could be impacted by a hazard event? Are impacts localized or regional?	1	Negligible	Less than 1% of area affected	20%
	2	Small	1%–25% of area affected	
	3	Moderate	25%–50% of area affected	
	4	Large	Greater than 50% of area affected	

RISK FACTOR EQUATION

$$RF \text{ Value} = [(Probability \times .30) + (Magnitude \times .30) + (Onset \times .10) + (Duration \times .10) + (Frequency \times .20)]$$

Table 4 presents the CPRI for the Village of Castleton-on-Hudson with respect to the different hazards the jurisdiction might experience.

Table 4: Types of Hazard Events with Calculated Priority Risk Index for the Village of Castleton-on-Hudson

Type of Hazard Event	Probability	Potential Consequences	Warning Time	Duration	Spatial Extent	Risk Factor Value
Drought	1	1	1	4	4	1.9
Earthquake	1	1	4	1	4	1.9
Earthquake	1	1	4	1	4	1.9
Extreme Temperature	4	2	1	3	4	3
Flooding	2	2	1	3	3	2.2
Hazardous Materials	1	1	4	4	2	1.6
High Winds	4	2	3	1	4	3
Hurricane or Tropical Storm	2	2	1	2	4	2.3
Landslide	1	2	4	1	2	1.8
Lightning	4	1	4	1	1	2.2
Terrorism	1	4	4	1	4	2.8
Tornado	1	3	3	1	3	2.2
Utility & Infrastructure Failure	4	1	4	3	4	3
Wildfire	1	3	2	3	4	2.5
Winter Storm	4	2	2	3	4	3.1
Other?	N/A	N/A	N/A	N/A	N/A	N/A

Hazard Event History

Understanding hazard event histories is crucial for effective risk management. Analyzing past events allows us to identify trends, patterns, and recurring risk factors. This knowledge enables us to better prepare for and mitigate the impact of future hazards. Examining hazard event histories provides valuable insights to inform decision-making and help prioritize resources for risk prevention and response efforts. Table 5 lists some of the more notable events in the Village of Castleton-on-Hudson since 2020.

Table 5: Notable Hazard Events in the Village of Castleton-on-Hudson Since 2020

Type of Hazard Event	FEMA Disaster # (If Applicable)	Date(s)	Damage or Impacts	Description
Drought	None	None	None	None
Earthquake	None	04/05/2024	No reported impacts	Earthquake with epicenter in NJ, felt in some parts of the county
Extreme Temperature Extreme Heat	None	08/12/2021	Heat indices reached 95°F–104°F across parts of the Hudson River from Albany and points southward reaching 105°F–110°F.	Extreme Heat
Extreme Cold	None	02/03/2023–02/04/2023	Warming centers were opened.	Arctic Cold: With extreme wind chills, some squalls, temperatures ranging from -18°F in Castleton to -39°F, and wind gusts up to 44 mph
Flooding (Including Flooding, Dam Failure, and Ice Jams)	None	None	None	None
Hazardous Materials	None	None	None	None
High Wind	None	07/17/2019	A tree was downed near the Trinity Lutheran Church.	Scattered thunderstorms developed ahead of a cold front over eastern New York. One of these storms became severe, resulting in several reports of wind damage in Rensselaer County.

Type of Hazard Event	FEMA Disaster # (If Applicable)	Date(s)	Damage or Impacts	Description
High Wind (cont.)	None	07/02/2020	A large tree was downed at Green Avenue and Chestnut Street. Over 10,000 customers lost power as a result of the storms throughout the county.	A cluster of thunderstorms moved southward down the Hudson Valley during the late afternoon and early evening. The storms produced scattered wind damage along their path, mainly to trees.
	None	07/20/2021	There were a couple of reports of hail, but these storms brought mostly damaging winds with downed trees and power lines, a couple of which fell onto homes or vehicles. Trees and wires were downed in the Village of Castleton-on-Hudson, with \$2,000 in property damage reported.	A warm and humid air mass ahead of an approaching cold front brought a couple of rounds of strong to severe thunderstorms across the region, mainly along and north of Interstate 90.
	None	08/13/2021	A tree was downed on Scott Avenue in the Village of Castleton-On-Hudson.	Scattered showers and severe thunderstorms: The main areas impacted from these storms stretched from the Mohawk Valley eastward to the Capital District.
	None	08/26/2022	A few of these storms became severe, downing trees and power lines. A tree was downed on Route 9J in the Village of Castleton-on-Hudson.	Scattered showers and thunderstorms developed across the region as a frontal system pushed through.
Hurricane or Tropical Storm	None	None	None	None
Landslide	None	None	None	None

Type of Hazard Event	FEMA Disaster # (If Applicable)	Date(s)	Damage or Impacts	Description
Lightning	None	08/21/2019	Lightning hit a tree, which resulted in downed wires trapping a person in a car. There was \$1,000 in property damage.	A strong upper-level shortwave moved into a humid and unstable airmass. This setup resulted in multiple severe thunderstorms, flooding, and two confirmed tornadoes with damage across much of the region. Over 10,000 people lost power.
Terrorism	None	None	None	None
Tornado	None	None	None	None
Utility & Infrastructure Failure	None	None	None	None
Wildfire	None	None	None	None
Winter Storm (Including Ice Storm and Snowstorm)	None	12/16/2020–12/17/2020	Downed trees and power lines from weight of snow	Snowfall in Rensselaer County ranging from 17.3 in to 26 in
	None	12/15/2022–12/17/2022	N/A	Nor'easter: With snowfall ranging from 1 in to 12 in
	None	03/13/2023–03/15/2023	Downed trees and power lines with widespread power outages	Nor'easter: With heavy wet snow, accumulations from 12 in to 31 in

According to the National Centers for Environmental Information (NCEI)¹¹ at the National Oceanic and Atmospheric Administration (NOAA), the notable events in the Village of Castleton-on-Hudson since 2020 include the following:

- **July 17, 2019** – Thunderstorm Wind: Scattered thunderstorms developed ahead of a cold front over eastern New York during the afternoon. One of these storms became severe, resulting in several reports of wind damage in Rensselaer County. A tree was downed near the Trinity Lutheran Church.
- **August 21, 2019** – Lightning: Due to a robust upper-level shortwave moving into a humid and unstable airmass, multiple severe weather hazards occurred during the afternoon and evening hours. This setup resulted in numerous severe thunderstorms, flooding, and two confirmed tornadoes with damage across much of the region. Over 10,000 people lost power. Lightning hit a tree, resulting in downed wires trapping a person in a car.
- **July 2, 2020** – Thunderstorm Wind: A cluster of thunderstorms moved southward down the Hudson Valley during the late afternoon and early evening. The storms produced scattered wind damage along their path, mainly to trees. A large tree was downed at Green Avenue and Chestnut Street in Castleton-on-Hudson.
- **July 20, 2021** – Thunderstorm Wind: A warm and humid air mass ahead of an approaching cold front brought a couple of strong to severe thunderstorms across the region, mainly along and north of Interstate 90 during the late afternoon and early evening hours. There were several reports of hail, but these storms brought mostly damaging winds with downed trees and power lines, some of which fell onto homes or vehicles. Trees and wires were downed in the Village of Castleton-on-Hudson. This happened along an outflow boundary ahead of a line of thunderstorms.
- **August 13, 2021** – The final hot and humid day resulted in another round of scattered showers and thunderstorms, some severe, during the afternoon and early evening hours ahead of an approaching cold front across eastern New York. The main areas impacted by these storms stretched from the Mohawk Valley eastward to the Capital District. Damaging winds downing trees and power lines were the primary impact, though some large hail was also observed. A tree was downed on Scott Avenue in the Village of Castleton-on-Hudson.
- **August 26, 2022** – Thunderstorm Wind: Scattered showers and thunderstorms developed across the region as a frontal system pushed through. A few of these storms became severe, downing trees and power lines. A tree was downed on Route 9J in the Village of Castleton-on-Hudson.

National Flood Insurance Program (NFIP) Summary

The National Flood Insurance Program (NFIP) is a Federal Emergency Management Agency (FEMA) program that provides flood insurance to millions of policyholders across the country. The following

¹¹ National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI). 01/01/2011–09/30/2024. "Rensselaer County, New York." https://www.ncdc.noaa.gov/stormevents/listevents.jsp?eventType=ALL&beginDate_mm=01&beginDate_dd=01&beginDate_yyyy=2011&endDate_mm=09&endDate_dd=30&endDate_yyyy=2024&county=RENSELAER%3A83&hailfilter=0.00&tornfilter=0&windfilter=000&sort=DT&submitbutton=Search&statefips=36%2CNEW+YORK.

information is provided to meet federal standards. The Village of Castleton-on-Hudson answered the NFIP questions in Table 6 through Table 8 to the best of its ability.

Table 6: Responses on Floodplain Management from the Village of Castleton-on-Hudson

Question	Response
Who is the floodplain manager? Is this their primary or secondary role?	Building Inspector Secondary
Does the floodplain manager have adequate training and capacity for their role? If not, what else is needed?	Yes
How does the community enforce its floodplain rules? Does enforcement include monitoring compliance and acting to correct violations?	Yes. Through Chapter 123 of Village Code, the Castleton/Schodack Local Waterfront Revitalization Plan, and the Waterfront Advisory Committee
When was the community's most recent Community Assistance Visit (CAV)?	Yes
Were any violations noted on the community's most recent CAV?	No
Is there an upcoming CAV? If no, is one needed?	No, but a visit is needed.
When was the most recent floodplain management ordinance adopted?	The Floodplain Management Plan was last updated in 2017.
Does your community participate in the Community Rating System (CRS)? If so, describe the steps the community has taken to achieve the CRS goals.	Yes
Does the community's floodplain management ordinance include any higher standards? If so, please list.	Yes. Village Code.
Who is responsible for permitting?	Building Inspector
How does the community issue development permits in the special flood hazard area?	Yes. Permits are issued through the Planning Board.
Does the community maintain elevation certificates?	Yes
Does the community track the number of buildings in the special flood hazard area? If yes, are there any trends?	Yes. Through the Flood Hazard Overlay District.
How many repetitive loss (RL) structures does the community have? (List number and type of structure.)	None

Question	Response
How many severe repetitive loss (SRL) structures does the community have? (List number and type of structure.)	None
Have any RL/SRL properties been mitigated since the last plan update?	N/A
Who is responsible for making substantial damage/substantial improvement determinations?	Building Inspector
How does the substantial damage/substantial improvement process work in your community?	Through the Planning Board
Is there sufficient staff and training to make substantial damage/substantial improvement determinations?	Yes
How are substantial damage/substantial improvement requirements messaged to the public before and after an event?	The village has marked the properties in the floodplain and monitors flood trends through the Building Department.
Have any substantially damaged/substantially improved structures been mitigated since the last plan update?	No
How will the community remain in compliance with the NFIP moving forward? (Simply stating "the community will continue to comply with the NFIP" will not meet FEMA's planning requirements.)	The village will continue to have the Waterfront Advisory Committee meet.

Table 7: Responses on Floodplain Mapping from the Village of Castleton-on-Hudson

Question	Response
How does the community support map change requests? This could be requests during the Risk MAP process or through Letters of Map Amendment or Revision.	Zoning Review
When did the latest Flood Insurance Rate Map (FIRM) become effective?	2001
When was the latest FIRM adopted?	2004
Is the FIRM and Flood Insurance Study (FIS) report in an accessible location? How would the public get access to their flood map information?	By contacting the village and the village website

Question	Response
Does the community use any Risk MAP products? If so, describe.	No
Does the community collect updated floodplain data or modeling? Is this shared with partners and with FEMA?	No
Other comments?	None

Table 8: Responses on Flood Insurance and Outreach from the Village of Castleton-on-Hudson

Question	Response
How does the community educate the public on floodplain management and the availability of flood insurance, in and out of the floodplain?	Through village zoning laws
How does the community engage with insurance agents on flood insurance?	No
Does the community (or state) have flood hazard disclosure laws?	N/A
How familiar is the public with their flood insurance options?	Unknown
How many properties have flood insurance in the community?	Unknown
Are there any areas where flood insurance is lacking?	Unknown
Other comments?	None

Critical Facilities Information

The following information is provided to meet standard F1. Identifying critical facilities in flood-prone areas is crucial for effective emergency planning and risk management. By understanding the potential impact of flooding on these facilities, local authorities can develop proactive strategies to mitigate risks and ensure the safety and functionality of these important assets during flood events. This information is valuable for decision-making and prioritizing resources for emergency response and preparedness efforts. Table 9 lists the critical facilities (emergency facilities, critical infrastructure and utilities, and other key facilities, as presented in Risk Assessment) that are in the floodplain in the Village of Castleton-on-Hudson.

Table 9: Critical Facilities Located in the Floodplain in the Village of Castleton-on-Hudson

Critical Facility	Type of Facility	Jurisdiction	1% Chance? Zone AE	0.02% Chance? Zone X (Shaded)	How has this facility been protected from flooding?	Feasibility of Mitigating the Flood Risk
Castleton Elementary School	School	Village of Castleton-on-Hudson	No	No	No	The facility is located on a hill and out of the floodplain.
Castleton Energy Center	Electric Power	Village of Castleton-on-Hudson	Yes	No	No	Currently being investigated through LWRP
Castleton Fire Department	Fire Station	Village of Castleton-on-Hudson	No	No	No	Hill behind Fire Dept. should be investigating
Riverside Center for Rehabilitation and Nursing	Medical Care	Village of Castleton-on-Hudson	No	No	No	The facility is located on a hill and out of the floodplain.
Wastewater Treatment Plant	Waste Water	Village of Castleton-on-Hudson	Yes	No	Yes	The facility was recently upgraded and capable of pumping out excess stormwater sanitarly.

Jurisdiction/Public Identified Vulnerabilities

Table 10 provides crucial information on critical facilities in the Village of Castleton-on-Hudson, highlighting the village’s vulnerability to identified hazards. It outlines the susceptibility of assets to damage from the identified hazards, offering valuable insights into their potential impact on these essential facilities. By understanding the risks to these assets, local authorities can develop proactive strategies to mitigate the vulnerabilities and ensure the safety and functionality of these important assets during hazard events. This data is invaluable for decision-making and prioritizing resources for emergency response and preparedness efforts, ultimately contributing to more effective risk management and building the resilience of the community.

Table 10: Vulnerable Assets in the Village of Castleton-on-Hudson

Vulnerable Assets	What makes this group/asset vulnerable during hazards? Have there ever been issues with recovery after an event?
People (residents, workers, visiting populations, and socially vulnerable populations like seniors, individuals with disabilities, lower-income individuals, etc.)	
Many of the residents along South Main Street are renting apartments.	Landlords may be less likely to accommodate issues due to flooding, high temperatures, or other climate-related issues if they have renters and are not personally affected by them.
The population of the village is aging.	The aging population is more susceptible to high temperatures and may be less likely to recover from weather events due to mobility or limited income.
Structures (residential, commercial, industrial, government-owned, planned capital improvement, etc.)	
North and South Main Street	While most of the area's structures are located at the top of the hill, buildings on North and South Main Streets are within the 100-year floodplain.
Residents located on wooded roadways	The village has many old-growth trees along roadways that can be a hazard to homes or powerlines during high winds or winter storms.
Economic Assets (major employers, primary economic sectors, critical infrastructure like telecommunications networks, etc.)	
None	N/A
Natural, Historical, and Cultural Resources (conservation areas, beaches, parks, critical habitats, community centers, historic places, etc.)	
Parkland located on the Hudson River	The parkland owned by the village is susceptible to flooding as well as washing away from the Hudson River.
Critical Facilities and Infrastructure (hospitals, law enforcement, water, power, transportation systems, etc.)	

Vulnerable Assets	What makes this group/asset vulnerable during hazards? Have there ever been issues with recovery after an event?
Wastewater Treatment Plant	The wastewater treatment plant is in a 100-year floodplain and is susceptible to power loss during high winds or winter storms.
Water Sites	Water sites are susceptible to power loss during high winds or winter storms.
State Route 9J	Route 9J is a major roadway between Albany and Hudson. It is in the 100-year floodplain and is susceptible to downed limbs or powerlines during high winds and winter storms.
Community Activities (major local events, such as festivals, or economic events, like farming or fishing)	
None	N/A
Are there any other assets that you can think to include?	
None	

Additional Public Involvement

As part of this 2025 plan update, the Village of Castleton-on-Hudson undertook various activities to (a) alert the public and other stakeholders to the fact that the HMP Planning Committee was developing the update and (b) provide the public and other stakeholders with a forum to ask questions and submit comments and suggestions on the process. Table 11 presents the outreach activities undertaken by the Village of Castleton-on-Hudson for the 2025 plan update.

Table 11: Outreach Activities Undertaken by the Village of Castleton-on-Hudson

Activity Date	Type of Activity	Activity Details	Department and/or Staff Member
April 2024–September 2024	Survey	Survey posted online and around village at library and various businesses.	Mayor’s Office

Capabilities Assessment

Local mitigation capabilities are essential for reducing the impact of hazards on communities. Local authorities can effectively mitigate hazards by leveraging existing authorities, policies, programs, and resources. These capabilities encompass a range of strategies, such as land use planning, building codes and enforcement, public education and outreach, infrastructure protection, and natural resource protection. Through collaboration with various stakeholders, including emergency management agencies,

public works departments, and environmental organizations, local communities can implement comprehensive mitigation efforts to minimize the impact of disasters. Table 12 through Table 15 provide the capabilities of the Village of Castleton-on-Hudson.

Planning and Regulatory

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards.

Table 12: Planning and Regulatory Capabilities of the Village of Castleton-on-Hudson

Regulatory Tools (Codes, Ordinances, Plans)	In Place (Y or N)	How has or could this resource be used for hazard mitigation?
Building code	Y	The village is planning a combined meeting with Building Inspector, Code Enforcement, Planning Board, and Zoning Board to review policies.
Zoning ordinance	Y	The village is planning a combined meeting with Building Inspector, Code Enforcement, Planning Board, and Zoning Board to review policies.
Subdivision ordinance or regulations	Y	The village is planning a combined meeting with Building Inspector, Code Enforcement, Planning Board, and Zoning Board to review policies.
Special purpose ordinances (floodplain management, stormwater management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	Y	Encourages growth in areas less flood, wildfire or landslide prone. Minimizes impacts from natural disasters. Helps protect environmental areas (e.g., floodplains and wetlands).
Growth management ordinances (also called “smart growth” or anti-sprawl programs)	N	Village has committed to NYS Pro-Housing Pledge and is working to rehabilitate vacant property in the village.
Site plan review requirements	Y	Minimizes damage and risk from natural hazards (e.g., flooding, high-wind zones, earthquakes) prior to future development and construction.
General, comprehensive or master plan	Y	Completed Comprehensive Plan updated 1/24 will be assessed at code review meeting.
Capital improvements plan	N	The village is working off of the approved Comprehensive Plan to determine timelines for Capital Improvements.
Economic development plan	N	Plan is high priority for Board now that Comprehensive Plan has been completed.
Emergency response plan	Y	The village established a safety committee in June 2023 and is working to update the current plan.

Regulatory Tools (Codes, Ordinances, Plans)	In Place (Y or N)	How has or could this resource be used for hazard mitigation?
Post-disaster recovery plan	N	N/A
Post-disaster recovery ordinance	N	N/A
Real estate disclosure requirements	Y	Helps with knowledge for disaster planning
Other	N	N/A

Administrative and Technical

Administrative and technical capabilities include staff and their skills.

Table 13: Administrative Capabilities of the Village of Castleton-on-Hudson

Staff/Personnel Resources	Available (Y or N)	How has or could this resource be used for hazard mitigation?
Planner(s) or engineer(s) with knowledge of land development and land management practices	N, hire as needed	N/A
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	N, hire as needed	N/A
Planners or engineer(s) with an understanding of natural and/or human-caused hazards	N, hire as needed	N/A
Floodplain manager	Y ¹²	Floodplain manager helps to prevent flooding through planning and regulations.
Surveyors	N, hire as needed	N/A
Staff with education or expertise to assess the community’s vulnerability to hazards	N, hire as needed	N/A
Personnel skilled in GIS and/or HAZUS	N	N/A

¹² All communities participate in the National Flood Insurance Program; as such, they are required by the regulations to have an appointed floodplain manager.

Staff/Personnel Resources	Available (Y or N)	How has or could this resource be used for hazard mitigation?
Scientists familiar with the hazards of the community	N, hire as needed	N/A
Emergency manager	Y	Emergency managers can be used in hazard mitigation for planning, coordinating, and being able to identify risk areas.
Grant writers	Y	Grant writers help secure funding for hazard mitigation projects
Staff with expertise or training in benefit/cost analysis	Y	Staff could help find best solutions for most benefit and least cost for each project

Financial

Financial capabilities are the resources to fund mitigation actions.

Table 14: Financial Capabilities of the Village of Castleton-on-Hudson

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)	How has or could this resource support hazard mitigation?
Community Development Block Grant (CDBG)	Yes	Unknown
Capital improvements project funding	Yes	Capital improvement project funding can be used for hazard mitigation by financing infrastructure upgrades to reduce the impact of natural disasters.
Authority to levy taxes for specific purposes	Yes	The authority to levy taxes for specific purposes can be used for hazard mitigation by generating dedicated funding to support projects like infrastructure improvements, emergency preparedness, and resilience-building efforts in high-risk areas.
Fees for water, sewer, gas, or electric service	Yes	Unknown
Impact fees for homebuyers or developers for new developments/homes	Yes	Unknown

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)	How has or could this resource support hazard mitigation?
Incur debt through general obligation bonds	Yes	The authority to incur debt through general obligation bonds can be used for hazard mitigation by raising funds to finance large-scale projects with repayment spread over time.
Incur debt through special tax and revenue bonds	No	N/A
Incur debt through private activity bonds	No	N/A
Withhold spending in hazard-prone areas	No	N/A
State mitigation grant programs	No	N/A
Other	N/A	N/A

Education and Outreach

Education and outreach capabilities are programs and methods that could communicate about and encourage risk reduction.

Table 15: Education and Outreach Capabilities of the Village of Castleton-on-Hudson

Education and Outreach Capability	In Place (Y/N)	Does this resource currently incorporate hazard mitigation?	Notes
Community newsletter(s)	Y	No	Community newsletter is distributed quarterly to all residents.
Hazard awareness campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, school programs)	Y	Yes	Informational materials distributed in newsletter, billing and at Village Hall regarding stormwater management.
Public meetings/events (Please describe.)	Y	No	Bi-weekly board meetings handle a variety of topics.

Education and Outreach Capability	In Place (Y/N)	Does this resource currently incorporate hazard mitigation?	Notes
Emergency management listserv	Y	Yes	Local businesses, residents, and agencies are informed in special events (i.e., water main breaks, snow emergencies).
Local news	N/A	Yes	Local news stations are informed in special events (i.e., water main breaks, snow emergencies).
Distributing hard copies of notices (e.g., public libraries, door-to-door outreach)	N/A	Yes	Hard copies of notices of water main breaks are distributed by hand to residents affected.
Insurance disclosures/outreach	N	No	N/A
Organizations that represent, advocate for, or interact with underserved and vulnerable communities (Please describe.)	N	No	N/A
Social Media (Please describe.)	Y	Yes	The village maintains a limited social media presence that it uses to notify residents of major events.
Other? (Please describe.)	N/A	N/A	N/A

Opportunities to Expand and/or Improve Capabilities

Table 16 presents opportunities for the Village of Castleton-on-Hudson to expand or improve capabilities.

Table 16: Opportunities to Expand and/or Improve the Capabilities of the Village of Castleton-on-Hudson

Capability Type	Opportunity to Expand and/or Improve
Planning and Regulations	Planning and regulations need to be looked at to reduce hazard areas.
Administrative and Technical	Low staffing
Financial	Grant writing staff or further training would be helpful to improve financial capabilities.
Education and Outreach	Could do more education for NFIP Program

Mitigation Strategy

Table 17 presents details about the 2019 mitigation actions. Table 18 presents the actions in the 2025 update, and Table 19 shows the prioritization of the mitigation actions.

Table 17: Status of Actions for the Village of Castleton-on-Hudson in 2019^{13,14}

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title	Status
1	Redevelopment Study of the Old Fort Orange Paper Co. Site	The company that had expressed an interest in developing the former Fort Orange site has withdrawn its interest. This is a 104-acre contaminated former industrial site that has the potential for mixed-use improvement, including the development of environmentally sustainable energy production, business/industry, recreation, and housing without having to divert	The village has engaged with the NYS LWRP, which has visited the site, reviewed options, and promulgated a request for proposal (RFP) to plan for the most feasible options for cleanup and use of the site. In addition, Castleton Energy Corporation is participating with the village in the NYSERDA Just Transition Site Reuse Planning Program to discuss planning to help mitigate any negative impact of the site’s eventual closure and its transition to a zero-emission facility.	Mayor and Village Board LWRP Committee RFP planning entity (TBA) Just Transitions Committee	The LWRP Committee has put out a call for RFP and received applications. The LWRP plans to make a selection within the next 60 days and move forward with the planning phase. The Just Transitions Committee has been meeting and will continue to meet and engage in discussions with Castleton Energy Center toward the eventual decommissioning of

¹³ Projects related to Critical Facilities (CF) must protect the facility to the 500-year event or worst damage scenario, whichever is greater.

¹⁴ LWRP = Local Waterfront Revitalization Program, NYSERDA = New York State Energy Research and Development Authority, HCR = Homes and Community Renewal, DEC = Department of Environmental Conservation, NFIP = National Flood Insurance Program, FIRM = Flood Insurance Rate Map, CFM = Certified Floodplain Manager

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title	Status
		approximately 1 million gallons of water from the Moordener Kill and without the potential of overstressing the village water treatment system.			the plant and the possibility of transitioning to a zero-emission facility.
2	New Development and Steep Slopes *NEW*	Public members have expressed concern to the mayor regarding new construction occurring in the village on steep slopes. The public has expressed general worry about the village at various times over the last few years. Rain can wash stones, soil, etc., down steep slopes in the village and onto roads including but not limited to Main Street. The village does enforce a steep slope ordinance, which requires additional review by an engineer and the Village Planning Board.	The village will engage with an engineer to determine the existence of/potential of risk for slope collapse, appropriate mitigation of same, and seek mitigation suggestions/input from the Village Planning Board, Rensselaer County Planning Office, NYS DEC, and NYS HCR (Homes and Community Renewal).	Mayor & Village Board Village DPW	Continues to be a viable action for 2025. No progress made.

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title	Status
3	Planting of Ice- and Wind-Resistant Trees (2011 CA-1)	Although the problem of older, unsafe, and damaged trees has been mitigated, recent storms suggest that it remains significant.	The village will continue identifying and removing older, unsafe, damaged trees as the budget allows. In addition, the village will investigate RENSICO and NYS DEC/HCR assistance in the form of planning, suggestion, or financial assistance to accelerate the removal of problem trees to mitigate both personal and property risk and potential damage due to storms or other hazards.	Mayor and Village Board Tree City Committee, Village DPW	The Arbor Day Foundation has designated the village a Tree City. The Tree City Committee has completed an inventory of the village trees, and removal of unsafe trees is underway. Indigenous trees are being planted as replacements for the damaged, unsafe trees.
4	Seaman Avenue Stormwater (2011 CA-2)	The pipes in Seaman Avenue are undersized. In addition, their age and subsequent deterioration is causing water to leach out of the pipes and in turn, instability and sliding along the slope. An engineer needs to be contracted.	The Village Comprehensive Plan directs analysis and prioritization of stormwater management and the addressing of infiltration and inflow. The village will develop an infrastructure master plan to make capital improvements to the stormwater management system that will reduce infiltration and inflow and improve overall stormwater management by prioritizing areas of the village (typically at the bottom of the hill and downtown) that are	Mayor and Village Board Village Water and Wastewater Treatment Staff, Village DPW	In process, the Project Leads are seeking input for the infrastructure master plan with the goal of having a plan developed by the end of Q3.

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title	Status
			older and less robust due to their age. The village will seek the assistance of Rensselaer County Planning, NYS DEC, and NYS HCR to help formulate a plan and develop an RFP for specific, prioritized remediation of this issue.		
5	Green Avenue Stormwater (2011 CA-3)	The pipes in Green Avenue are undersized. In addition, their age and subsequent deterioration are causing water to leach out of them, which in turn is causing instability and sliding along the slope.	See Initiative 4	Mayor and Village Board Village Water and Wastewater Treatment Staff Village DPW	In the process, the Project Leads are seeking input for the infrastructure master plan, with the goal of developing a plan by the end of Q3.
6	Main Street Stormwater (2011 CA-4)	Pipes, catch basins, and outfalls along Main Street are deteriorating and undersized, causing stormwater flooding.	See Initiative 4	Mayor and Village Board Village Water and Wastewater Treatment Staff Village DPW	In the process, the Project Leads are seeking input for the infrastructure master plan, with the goal of developing a plan by the end of Q3.
7	Benedict Street Stormwater (2011 CA-5)	The stormwater line in the Valley at the end of Benedict Street is undersized and has	See Initiative 4	Mayor and Village Board	In the process, the Project Leads are seeking input for the infrastructure master

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title	Status
		deteriorated galvanized piping. This causes water to leach out of the pipes, which in turn makes the slope unstable.		Village Water and Wastewater Treatment Staff Village DPW	plan, with the goal of developing a plan by the end of Q3.
8	Participate in County-Led Hazard Mitigation Outreach (2011 CA-CL-1)	Uneducated public. 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 websites to link up to this site, if they have not 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, at the discretion of each jurisdiction (incorporating as much free information as possible from the FEMA	County-led action item. CPG Member, Village Trustee	Continues to be a viable action for 2025 No progress made.

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title	Status
			Publications Warehouse and other appropriate sources) (public education).		
9	Request Code/Ordinance Review by County As Needed (2011 CA-CL-2)	Communities are safer and more resilient when new construction and substantial improvements consider 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).	County-led action item. CPG Member, Village Trustee	Continues to be a viable action for 2025. No progress made.
10	Send CEO to County-Led Training (2011 CA-CL-3)	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 hazardous areas to protect lives and property.	Code enforcement: Enforcement of NYS and Local Building Codes with Continual CEO training (prevention).	County-led action item. CPG Member, Village Trustee	Continues to be a viable action for 2025. No progress made.
11	Send Comprehensive Plan Update to County for Review by	Lack of hazard mitigation plan as part of the village comprehensive plan. A	Ensure that local comprehensive plans incorporate natural disaster mitigation techniques through	County-led action item. CPG Member, Village	The Comprehensive Plan was updated in January 2024 and approved by Rensselaer

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title	Status
	County Planning (2011 CA-CL-4)	long-term vision for the community that does not consider hazard areas can put lives and property at risk. Considering natural hazards and hazard mitigation measures can make the community more resilient.	a courtesy review of draft plans by the County Planning Department (prevention).	Trustee, Village Safety Officer	County. Section 4.6 details land use, including information on the Flood Hazard Overlay District and the Critical Environmental Overlay District.
12	Attend County-Led Workshops on Natural Hazards and Hazard Mitigation (2011 CA-CL-5)	Municipal staff who are not armed with information on zoning and planning issues that sometimes arise regarding natural hazards and hazard mitigation may make decisions that do not foster community resiliency.	Hold periodic workshops for municipalities regarding zoning and planning issues regarding natural hazards and hazard mitigation (prevention).	County-led action item. CPG Member, Village Trustee, Village Safety Officer	Continues to be a viable action for 2025. No progress made.
13	Update Floodplain Management Ordinance per New FEMA Regulations (As Needed) (2011 CA-NFIP-1)	Outdated ordinances mean that a community is not regulating according to the latest codes and standards or hazard information, which does not foster community resiliency.	Update/revise floodplain management ordinance to comply with latest FEMA regulations.	Building and Planning	Continues to be a viable action for 2025. No progress made.

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title	Status
14	Designate a Floodplain Administrator (2011 CA-NFIP-2)	Staff turnover can lead to gaps in knowledge of NFIP program requirements.	Designate/install a specific person to be the municipality's Floodplain Administrator.	Building	The Building Inspector has been designated as the Floodplain Administrator, with the assistance of the Planning and Zoning Boards.
15	Add/Train Sufficient Members of Staff to Adequately Enforce NFIP Regulations And Floodplain Management Ordinance (2011 CA-NFIP-3)	Communities are safer when their floodplain management ordinances are appropriately administered.	Add/train sufficient staff members to enforce NFIP regulations/floodplain management ordinances adequately.	Building and Planning	The Building Inspector will attend available training related to floodplain management.
16	Update Floodplain Management Ordinance When New FIRMs Are Issued (2011 CA-NFIP-4)	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 the floodplain management ordinance to be consistent with potential future new FIRMs.	Building	The village plans code revision with the Building Inspector, Code Enforcement Officer, and Planning and Zoning Boards.
17	CFM Certification (2011 CA-NFIP-5)	CFM requirement would ensure that the person administering the local ordinance is knowledgeable in FEMA-480.	Explore the possibility of requiring staff involved in floodplain management and ordinance enforcement to become CFMs.	Mayor, Building and Planning	The village will explore this option. No progress made.

Initiative Number	Initiative Name	Description of the Problem	Description of the Solution	Project Lead/ Department and Position Title	Status
		Without the CFM exam, it is a hope but may not be the reality.			

Table 18: Proposed New 2025 Mitigation Actions¹⁵

Project #	Project Name	Action Worksheet (Yes/No)	Goal / Objective Being Met	Hazard to Be Mitigated	Description of the Problem	Description of the Solution	Lead Agency	Related to CF?	EHP Issues	Estimated Timeline	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
1	Redevelopment Study of the Old Fort Orange Paper Co. Site	No	Promote resilient new development.	Hazardous materials	The company that had expressed an interest in developing the former Fort Orange site has withdrawn its interest. This is a 104-acre contaminated former industrial site that has the potential for mixed use improvement, including development of environmentally sustainable energy production, business/industry, recreation and housing without having to divert approximately 1 million gallons of water from the Moordener Kill and without the potential of overstressing the village water treatment system.	The village has engaged with the NYS LWRP which has visited the site, reviewed options and promulgated a request for proposal (RFP) to plan for the most feasible options for cleanup and use of the site. In addition, Castleton Energy Corporation is participating with the village in the NYSERDA Just Transition Site Reuse Planning Program to discuss planning to help mitigate any negative impact of the site's eventual closure and its transition to a zero-emission facility.	Mayor and Village Board	No	Yes	2-4 years	\$500K-\$1M	Potential transformation of a 104-acre contaminated industrial site into a sustainable mixed-use area for energy production, business, recreation, and housing, while mitigating environmental impacts, protecting local water systems, and supporting the village's infrastructure capacity.	HMGP, BRIC, FMA	Medium
2	New Development and Steep Slopes	No	Promote resilient new development.	Landslide, utility and infrastructure failure	Members of the public have expressed concern to the mayor regarding new construction occurring in the village on steep slopes. The public has expressed general worry about the village at various times over the last few years. Rain can wash stones, soil, etc., down steep slopes in the village and onto roads including but not limited to Main Street. The village	The village will engage an engineer to determine the existence of/potential of risk for slope collapse, appropriate mitigation of same, and seek mitigation suggestions/input from the Village Planning Board, Rensselaer County Planning Office, NYS DEC, and NYS HCR. They will assess the potential risks of slope collapse in the village due to new construction on steep slopes, and to develop	LWRP Committee	No	Yes	2-4 years	\$100,000-\$500,000	Reduce risks of slope collapse and erosion-related hazards, improved public safety, and the development of effective mitigation strategies through collaboration with engineers, local planning boards, and state and county agencies.	HMGP, BRIC, FMA	High

¹⁵ LWRP = Local Waterfront Revitalization Program, NYSERDA = New York State Energy Research and Development Authority, HCR = Homes and Community Renewal, DEC = Department of Environmental Conservation, NFIP = National Flood Insurance Program, FIRM = Flood Insurance Rate Map, CFM = Certified Floodplain Manager, BRIC = Building Resilient Infrastructure and Communities, DEC = Department of Environmental Conservation, FMA = Flood Mitigation Assistance, HMGP = Hazard Mitigation Grant Program

Project #	Project Name	Action Worksheet (Yes/No)	Goal / Objective Being Met	Hazard to Be Mitigated	Description of the Problem	Description of the Solution	Lead Agency	Related to CF?	EHP Issues	Estimated Timeline	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
					enforces a steep slope ordinance, which requires additional review by an engineer and the planning board.	mitigation strategies by engaging with engineers, the Village Planning Board, and relevant state and county agencies to ensure public safety and reduce erosion-related hazards.								
3	Planting of Ice- and Wind-Resistant Trees	No	Protect existing assets.	Winter storms, high winds	Although the problem of older, unsafe, and damaged trees has been mitigated, recent storms suggest that it remains significant.	The village will continue to identify and remove older, unsafe, damaged trees as the budget allows. In addition, the village will investigate RENSICO and NYS DEC/HCR assistance in the form of planning, suggestions, or financial assistance to accelerate the removal of problem trees and mitigate both personal and property risk and potential damage due to storms or other hazards. This will enhance the village's resilience to storms by planting trees that are resistant to ice and wind damage, while continuing to identify and remove unsafe, damaged trees, and exploring external assistance for accelerating tree mitigation efforts to reduce personal and property risks.	RFP planning entity (TBA)	No	Yes	1-3 years	\$100,000-\$500,000	Enhanced storm resilience, reduced risks of damage to personal property, and a safer environment by planting more resilient trees and removing unsafe, damaged trees to prevent storm-related hazards.	HMGP, BRIC	Medium
4	Seaman Avenue Stormwater	No	Protect existing assets.	Flooding, landslide	The pipes in the area of Seaman Avenue are undersized. In addition, their age and subsequent deterioration is causing water to leach out of the pipes and in turn,	The Village Comprehensive Plan directs analysis and prioritization of stormwater management and the address of infiltration and inflow. The village will develop an	Just Transitions Committee	No	No	1-3 years	\$100,000-\$500,000	Improved stormwater management by replacing undersized and deteriorating pipes, reducing infiltration and	HMGP, BRIC, FMA	High

Project #	Project Name	Action Worksheet (Yes/No)	Goal / Objective Being Met	Hazard to Be Mitigated	Description of the Problem	Description of the Solution	Lead Agency	Related to CF?	EHP Issues	Estimated Timeline	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
					instability and sliding along the slope. The engineer needs to be contracted.	infrastructure master plan to make capital improvements to the stormwater management system that will reduce Infiltration and Inflow and improve overall stormwater management by prioritizing areas of the village (typically at the bottom of the hill and downtown) that are older and less robust due to their age. The village will seek the assistance of Rensselaer County Planning, NYS DEC, and NYS HCR to help formulate a plan and develop an RFP for specific, prioritized remediation of this issue. Developing an infrastructure master plan to address and improve the village's stormwater management system by replacing undersized and deteriorating pipes, reducing infiltration and inflow, and prioritizing capital improvements in older, vulnerable areas of the village, with assistance from state and county agencies.						inflow, and addressing infrastructure vulnerabilities in older areas, all of which will help prevent water-related instability and flooding while improving overall system efficiency.		
5	Green Avenue Stormwater	No	Protect existing assets.	Flooding, Landslides	The pipes in the area of Green Avenue are undersized. In addition, their age and subsequent deterioration is causing water to leach out of the pipes and in turn,	The Village Comprehensive Plan directs analysis and prioritization of stormwater management and the address of infiltration and inflow. The village will develop an	Village DPW	No	No	1-3 years	\$100,000-\$500,000	Improved stormwater management by replacing outdated, undersized pipes, reducing infiltration and	HMGP, BRIC, FMA	High

Project #	Project Name	Action Worksheet (Yes/No)	Goal / Objective Being Met	Hazard to Be Mitigated	Description of the Problem	Description of the Solution	Lead Agency	Related to CF?	EHP Issues	Estimated Timeline	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
					instability and sliding along the slope.	infrastructure master plan to make capital improvements to the stormwater management system that will reduce Infiltration and Inflow and improve overall stormwater management by prioritizing areas of the village (typically at the bottom of the hill and downtown) that are older and less robust due to their age. The village will seek the assistance of Rensselaer County Planning, NYS DEC, and NYS HCR to help formulate a plan and develop an RFP for specific, prioritized remediation of this issue. Developing an infrastructure master plan to address and improve the village's stormwater management system by replacing undersized and deteriorating pipes, reducing infiltration and inflow, and prioritizing capital improvements in older, vulnerable areas of the village, with assistance from state and county agencies.						inflow, and addressing infrastructure weaknesses in vulnerable areas, ultimately preventing water-related damage and improving the overall system's efficiency.		
6	Main Street Stormwater	No	Protect existing assets.	Flooding	Pipes, catch basins, and outfalls along Main Street are deteriorated and undersized causing stormwater flooding.	The Village Comprehensive Plan directs analysis and prioritization of stormwater management and the address of infiltration and inflow. The village will develop an	Mayor and Village Board Village DPW	No	No	1-3 years	\$100,000-\$500,000	Improved stormwater management by replacing deteriorated and undersized pipes, catch basins, and outfalls, reducing	HMGP, BRIC, FMA	High

Project #	Project Name	Action Worksheet (Yes/No)	Goal / Objective Being Met	Hazard to Be Mitigated	Description of the Problem	Description of the Solution	Lead Agency	Related to CF?	EHP Issues	Estimated Timeline	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
						infrastructure master plan to make capital improvements to the stormwater management system that will reduce Infiltration and Inflow and improve overall stormwater management by prioritizing areas of the village (typically at the bottom of the hill and downtown) that are older and less robust due to their age. The village will seek the assistance of Rensselaer County Planning, NYS DEC, and NYS HCR to help formulate a plan and develop an RFP for specific, prioritized remediation of this issue.						flooding and water-related damage, and enhancing system performance in vulnerable areas of the village through prioritized infrastructure improvements.		
7	Benedict Street Stormwater	No	Protect existing assets.	Flooding, landslide	The stormwater line in the valley at the end of Benedict Street is undersized and deteriorated galvanized piping, causing water to leach out of pipes and, in turn, the slope is unstable.	The Village Comprehensive Plan directs analysis and prioritization of stormwater management and the address of infiltration and inflow. The village will develop an infrastructure master plan to make capital improvements to the stormwater management system that will reduce Infiltration and Inflow and improve overall stormwater management by prioritizing areas of the village (typically at the bottom of the hill and downtown) that are older and less robust due to their age. The village will	Village DPW	No	No	1–3 years	\$100,000–\$500,000	Improved stormwater management by replacing undersized and deteriorating galvanized piping, reducing water leakage and slope instability, and enhancing the overall efficiency of the stormwater system in vulnerable areas of the village.	HMGP, BRIC, FMA	High

Project #	Project Name	Action Worksheet (Yes/No)	Goal / Objective Being Met	Hazard to Be Mitigated	Description of the Problem	Description of the Solution	Lead Agency	Related to CF?	EHP Issues	Estimated Timeline	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
						seek the assistance of Rensselaer County Planning, NYS DEC, and NYS HCR to help formulate a plan and develop an RFP for specific, prioritized remediation of this issue.								
8	Participate in County-Led Hazard Mitigation Outreach	No	Increase public awareness.	Drought, earthquake, extreme temperatures, flooding, hazardous materials, high winds, hurricane/tropical storms, landslide, lightning, terrorism, tornado, utility, and infrastructure failure, wildfire, winter storms	Uneducated public. 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 websites to link up to this site, if they have not 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, at the discretion of each jurisdiction (incorporating as much free information as possible from the FEMA Publications Warehouse and other appropriate sources) (public education).	Mayor and Village Board	No	No	1-2 years	<\$100,000	Increased public awareness of hazards and mitigation strategies, empowering residents with the knowledge to reduce property damage, enhance safety, and better prepare for hazard events, while supporting broader county efforts to educate and inform the community.	HMGP, BRIC, FMA	Medium
9	Request code/ordinance review by	No	Promote resilient development.	Utility and infrastructure failure	Communities are safer and more resilient when new construction and	Code update: Review existing local codes and ordinances against the	Tree City Committee,	No	No	1-2 years	<\$100,000	Ensure that local building codes and ordinances	HMGP, BRIC, FMA	Medium

Project #	Project Name	Action Worksheet (Yes/No)	Goal / Objective Being Met	Hazard to Be Mitigated	Description of the Problem	Description of the Solution	Lead Agency	Related to CF?	EHP Issues	Estimated Timeline	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
	County as needed				substantial improvements take into account the latest information on hazard vulnerabilities and measures to reduce risk.	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). This will ensure that local building codes and ordinances reflect the latest hazard data and risk reduction measures, by reviewing and updating them as necessary to improve community resilience and safety in the face of identified hazards.	Village DPW					are updated to reflect the latest hazard data, improving community resilience and safety by addressing identified risks and ensuring new construction is aligned with the most current mitigation measures.		
10	Send Code Enforcement Officer (CEO) to County-Led Training	No	Promote resilient new development.	Utility and infrastructure failure	There can be a loss of institutional knowledge with staff changes. Even when the 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). This will ensure that the CEO remains well-informed on the latest NYS and local building codes, enhancing the village's ability to effectively regulate activities in hazard areas and protect lives and property through continuous training.	Village DPW	No	No	1-2 years	<\$100,000	Ensure the CEO is up to date on the latest building codes, improving the village's ability to regulate hazard-related activities effectively, and enhancing overall safety and property protection through ongoing professional development.	HMGP, BRIC, FMA	Medium
11	Attend County-Led Workshops on Natural Hazards and Hazard Mitigation	No	Improve capabilities.	Drought, earthquake, extreme temperatures, flooding, hazardous materials, high winds,	When municipal staff are not armed with information on zoning and planning issues that sometimes arise regarding natural hazards and hazard mitigation, they may	Hold periodic workshops for municipalities regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation (prevention).	Village Water and Wastewater Treatment Staff, Village DPW	No	No	1-2 years	<\$100,000	Equipping municipal staff with the knowledge and tools necessary to make informed zoning and planning	HMGP, BRIC, FMA	Medium

Project #	Project Name	Action Worksheet (Yes/No)	Goal / Objective Being Met	Hazard to Be Mitigated	Description of the Problem	Description of the Solution	Lead Agency	Related to CF?	EHP Issues	Estimated Timeline	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
				hurricane/ tropical storms, landslide, lightning, terrorism, tornado, utility, and infrastructure failure, wildfire, winter storms	make decisions that do not foster community resiliency.							decisions, improving community resilience and ensuring that future development addresses natural hazards effectively.		
12	Update Floodplain Management Ordinance per New FEMA Regulations (As Needed)	No	Protect existing assets.	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.	Mayor	No	No	1-2 years	<\$100,000	Improve flood risk management, ensuring the community is aligned with the latest standards, and enhancing overall resilience to flooding hazards.	HMGP, BRIC, FMA	Medium
13	Designate a Floodplain Administrator	No	Improve capabilities.	Flooding	Staff turnover can lead to gaps in knowledge of NFIP program requirements.	Designate/install a specific person to be the municipality's Floodplain Administrator.	Mayor and Village Board	No	No	1-2 years	<\$100,000	Ensure consistent enforcement of NFIP program requirements, addressing potential gaps in knowledge due to staff turnover, and maintaining effective floodplain management practices within the municipality.	HMGP, BRIC, FMA	Medium
14	Add/Train Sufficient Members of Staff to Adequately Enforce NFIP Regulations	No	Improve capabilities.	Flooding	Communities are safer when their floodplain management ordinances are administered properly.	Add/train sufficient members of staff to adequately enforce NFIP regulations/floodplain management ordinances. Adequately Enforcing NFIP Regulations and	Village Water and Wastewater Treatment Staff	No	No	1-2 years	<\$100,000	Improve flood risk management, enhanced community safety, and more effective enforcement of	HMGP, BRIC, FMA	Medium

Project #	Project Name	Action Worksheet (Yes/No)	Goal / Objective Being Met	Hazard to Be Mitigated	Description of the Problem	Description of the Solution	Lead Agency	Related to CF?	EHP Issues	Estimated Timeline	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
	and Floodplain Management Ordinance					Floodplain Management Ordinance project is to ensure that the community has enough trained personnel to effectively enforce floodplain management ordinances and NFIP regulations, enhancing safety and flood risk management.						regulations that protect lives and property.		
15	Update Floodplain Management Ordinance when New FIRMs are Issued	No	Promote resilient new development.	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. This will ensure that the community's floodplain management ordinance is aligned with the latest FIRMs, keeping regulations current and enhancing flood risk management and community resilience	Village DPW	No	No	1-2 years	<\$100,000	Ensure that the community's regulations are aligned with the most current flood risk data, improving flood risk management, and enhancing overall community resilience to flooding hazards.	HMGP, BRIC, FMA	Low
16	CFM Certification	No	Improve capabilities.	Flooding	CFM requirement would ensure that the person administering the local ordinance is knowledgeable in FEMA-480. Without the CFM exam, it is a hope but may not be the reality.	Explore the possibility of requiring staff involved in floodplain management and ordinance enforcement to become CFMs.	Mayor and Village Board	No	No	2-3 years	<\$100,000	Ensure that staff involved in floodplain management and ordinance enforcement are well-trained and knowledgeable, leading to more effective and informed implementation of floodplain regulations and improved overall flood risk management.	HMGP, BRIC, FMA	Low

Table 19 Mitigation Action Prioritization

Action #	Social	Technical	Administrative	Political	Legal	Economic	Environmental	Priority
1	4	2	2	3	2	3	2	Medium
2	4	2	2	4	3	3	3	High
3	4	3	3	3	3	3	3	Medium
4	4	3	3	4	3	3	3	High
5	4	3	3	4	3	3	3	High
6	4	3	3	4	3	3	3	High
7	4	3	3	4	3	3	3	High
8	4	4	4	3	3	3	3	Medium
9	4	3	3	3	3	3	3	Medium
10	4	3	3	3	3	3	3	Medium
11	3	3	3	3	3	3	3	Medium
12	4	3	2	3	3	3	3	Medium
13	4	3	3	3	3	3	4	Medium
14	3	3	3	3	3	3	3	Medium
15	3	3	2	3	2	3	3	Low
16	3	2	2	3	3	3	3	Low