

24 JURISDICTIONAL ANNEXES

24.1 TOWN OF HENDERSON

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

24.2 HAZARD MITIGATION PLANNING TEAM

The Town of Henderson identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments.

Table A summarizes local officials who participated in the development of the annex. Additional documentation of the Town's planning activities through Planning Partnership meetings is included in Volume I.

Table A. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Karen Richmond, Town Supervisor	Name/Title: Wendy Flagg, Town Clerk
Address:12105 Town Barn Road, Henderson, NY 13650	Address:12105 Town Barn Road, Henderson, NY 13650
Phone Number:778-7494	Phone Number:(315) 938-5542
Email: supervisor@townofhendersonny.org	Email: clerk@townofhendersonny.org

National Flood Insurance Program Floodplain Administrator

Name/Title: Eric Sheldon, Zoning Enforcement Officer Address:12105 Town Barn Road / Henderson, NY 13650

Phone Number: (315) 938-5542

Email: enforcementofficer@townofhendersonny.org

24.3 COMMUNITY PROFILE

24.3.1 Community Classifications

Table B summarizes classifications for community programs available to Henderson.

Table B. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	3	6/27/22
Community Rating System (CRS)	No	-	-
Firewise Communities classification	No	-	-
National Weather Service StormReady Certification	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	6	
NYSDEC Climate Smart Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-



N/A = Not applicable

24.3.2 Community Profile

The Town of Henderson has an area of 41 square miles and is located in the southern part of the County. The Town is bordered by the Town of Hounsfield to the north, the Town of Adams to the east, the Town of Ellisburg to the south, and Henderson Bay to the west. Numerous state highways run directly through the Town of Henderson.

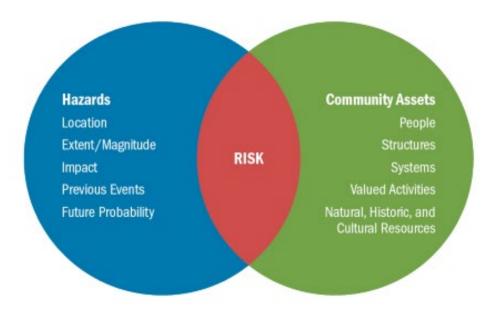
According to the U.S. Census, the 2020 population for the Town of Henderson was 1,438 which makes up 1.2 percent of the county population. Data from the 2022 American Community Survey indicates that 3.3 percent of the population is 5 years of age or younger, 44.7 percent is 65 years of age or older, 0.5 percent is non-English speaking, 18.4 percent is below the poverty threshold, and 19.6 percent is considered disabled.

24.4 JURISDICTIONAL RISK ASSESSMENT

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

Each jurisdiction has unique assets, vulnerabilities and overall risk. A multi-jurisdictional plan needs to identify every hazard (from the whole planning area). In hazard mitigation planning, risk is the potential for damage or loss when natural hazards interact with people or assets. These assets may be buildings, infrastructure or natural and cultural resources. A risk assessment is a robust, data-driven analysis. It explains what might happen. It also finds where the local jurisdiction is vulnerable to hazards.

Each community must describe how the selected hazards affect its jurisdiction. Some hazards will have similar effects across the area: extreme temperatures, windstorms, winter weather, drought, heavy rain, etc. Some have a smaller location and will vary based on geography. Multi-jurisdictional plans must explain these differences.



Risk is the relationship, or overlap, between hazards and community assets. The smaller the overlap, the lower the risk.

24.4.1 Hazard Area

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

Sackets Harbor (V) Henderson (T) County Boundary Municipality Boundary Hounsfield (T) Interstate State Highway U.S. Highway Lake Ontario Waterbody **Critical Facilities** Parochial Emergency ★ Airfield Education Shelter Airport Fire Station Pharmacy Ambulance Place of Hospital Station Worship Assisted Land Mobile Police Station Living Broadcast Tower Polling Site Bridge Library Post-Cell Tower Secondary Microwave Education Service Chemical Tower Potable Storage Water Well Correctional Military Site Primary Facility Municipal Education Dam Building Secondary Nursing Education **EOC** Home New Electric Development Power Plant Coastal Erosion **FEMA Flood** Hazard Area Hazard Area I-Percent Annual Chance Flood Extreme High 0.2-Percent Annual Chance Flood Moderate Moderate The flood hazard area depicted is the Q3 Flood Data dated: 05/18/1992 1.5 Ellisburg (T) Sources: Jefferson County 2024; NYS Department of Transportation 2023-2024; USGS 2010-2011, 2020; New York 20 newspielodi Couly, 2021; V.10 of Couly, 2021;

Figure 1. Henderson Flood and Coastal Erosion Hazard Area Extent and Location Map

Sackets Harbor (V) Henderson (T) County Boundary Municipality Boundary Hounsfield (T) Interstate State Highway U.S. Highway Lake Ontario Waterbody **Critical Facilities Parochial** Emergency ★ Airfield Shelter Education Airport 0 Fire Station Pharmacy Ambulance Place of Hospital Station Worship Land Mobile Assisted Police Station Broadcast Living Tower Polling Site Bridge Library Post-Cell Tower Secondary Microwave Education Service Chemical Storage Tower Potable Adams (T) Water Well Correctional (n) Military Site Facility Primary Municipal Education Building Secondary Nursing Education **EOC** Home New Electric Development Power Plant Wildland-Urban Landslide Susceptibility Hazard Area Interface/Intermix Hazard Area 0 Moderate Susceptibility/Low Incidence Intermix Low Incidence Interface 0.75 1.5 Sources Jefferson County 2024; NYS Department of Transportation 2023-2024; USGS 2010-2011; 2020; University of Wisconsin-Madison 2023, MRLC Consortium 2021, U.S. Census Bureau 2020; New York State Department of Environmental Conservation 2023, 2024; Federal Communications Commission 2024; HIELD 2023, 2024; NYS Department of Health 2024; NaGCE 2021.

Figure 2. Henderson Landslide and WUI Hazard Area Extent and Location Map

24.4.2 Previous Event History

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

Table C. Presidential Disaster Declaration History in Henderson

Dates of Event	Event Type (Disaster Declaration)	Summary of Event	Summary of Damage and Losses in Henderson
November 18- 22, 2022	Severe Winter Storm (EM- 3589)	A winter storm caused more than six feet of snow to accumulate in Jefferson County. This intense snowfall has created extremely dangerous travel conditions, and as a result, numerous road closures and travel bans.	The Town reported a lot of overtime. The Town did not incur any documented damage or losses.
October 31 – November 1, 2019	Severe Storm, Flood (DR-4472)	A storm system brought record breaking rains, damaging wind gusts (45 to 50 mph), a small Lake Ontario seiche, and river flooding to the region. Thousands of power outages occurred across the area, and wind-related damage closed hundreds of roads and did countless tree damage. High winds and lakeshore flooding continued into November 1.	The Town reported a lot of overtime. The Town did not incur any documented damage or losses.
May 2 – August 6, 2017	Flood (DR-4348)	Six months of wet weather led to an over-accumulation of waters in Lake Ontario. Flooding from the lake began impacting areas in May and continued until early autumn. Waves destroyed public and private break walls all along the lake shore. Thousands of homes and buildings were affected flood waters. Several homes dropped off bluffs. In some areas shoreline erosion of 50 to 100 feet deep occurred. Sanitary sewer systems in lakeside communities were affected. Beaches, marinas, and state parks were closed all summer long with unknown economic losses to mainly seasonal businesses. In late May, the Governor imposed a 5-mph speed limit within 600 feet of the Lake Ontario and St. Lawrence River shore. By summer's end, damage estimates reached \$10 Million in Jefferson County.	The Town reported flooding down the harbor and docks, but no documented significant damages or losses were incurred.



Dates of Event	Event Type (Disaster Declaration)	Summary of Event	Summary of Damage and Losses in Henderson
November 17- 26, 2014	Severe Winter Storm, Flood (DR-4204)	A winter storm moved into the region, causing temperatures to drop tremendously. Lake effect snow impacted counties bordering Lake Ontario and Lake Erie. Travel restrictions were instituted due to whiteout conditions. The storm produced heavy snowfall, high winds, and blizzard-like conditions, resulting in road closures, travel disruptions, power outages, and damage to public and private property.	The Town did not incur any documented damage or losses.
October 27 – November 8, 2012	Severe Storm (EM-3351)	Remnants of Hurricane Sandy brought strong winds and heavy rains. Rainfall amounts of two to five inches were measured across the area with some area creeks reaching bankful. High winds downed trees and power lines. Wind gusts were measured to 60 mph. Utilities reported tens of thousands of customers without power across the entire region.	The Town reported a lot of overtime. The Town did not incur any documented damage or losses.

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



24.4.3 Local Hazard Impacts Assessment

In the table below representatives from the Town of Henderson Hazard Mitigation Planning Team assessed impacts of hazards on buildings, structures, facilities, infrastructure, community assets and systems, people and the local economy.

Table D. Local Hazard Impacts Assessment

Hazard Name	Local Impacts
Dam Failure	No dams are located within the Town. There have been numerous beaver dams located throughout the Town, but no significant damage has occurred.
Drought	Some farms in the Town are impacted by drought events. The fishing industry is also impacted because low water levels mean that boats cannot get into the marina which impacts the tourism economic sector.
Extreme Temperature	The local fire hall is a temporary shelter for all emergencies, and they have a stand- by generator. The Town Barn does not have a generator and would benefit from having one so that they can perform continuity of operations.
Flood	When water is not let out, there is significant flooding around the lakeshore that occurs during high water levels which impacts properties and the marina as well.
Geological Hazards	No damage has been reported from the increasing number of earthquakes and there have been no concerns or damages with landslide events.
Severe Storm	The Town has reported wind damages resulting in trees and wires downed and residents without power.
Severe Winter Storm	The Town can handle winter weather events, however additional equipment such as a blower for the loader would be beneficial to clear open areas. Snow drifting is also a concern that the Town has been experiencing in relation to large snow piles.
Wildfire	When the Town experiences dry years, those are concerned for wildfire events. The Fire Department manages the fires relatively well and there have been no recent records of uncontrolled fires.

24.4.4 Vulnerable Community Assets

In the table below representatives from the Town of Henderson Hazard Mitigation Planning team assessed specific impacts to the assets included in the table below. If a community asset is not present in the municipality the Planning Team stated, 'Not Applicable.'

Table E. Vulnerable Community Assets

Community Asset	Hazard Impacts and Asset Vulnerabilities		Hazard Impacts and Asset Vulnerabilities
Agriculture	The Town has experienced droughts and flooding/runoff events that have impacted agriculture production. In 2020/2021, the Town incurred wind damage that knocked all the corn down which resulted in a big crop loss.	Local Roads	The Town has put culverts in, and most were built on flat rock. The Town Barn Road; Bishop Street; Alyes Road; County Route 123, Sand Road all flood and need a drainage study to figure out why.

Community Asset	Hazard Impacts and Asset Vulnerabilities	Community Asset	Hazard Impacts and Asset Vulnerabilities
Airports	Not applicable	Major Employers	The Marina and larger farms are major employers in the Town and they are impacted by drought and flooding.
Area: Concentration of Businesses	The Hamlet of Henderson is where a cluster of small businesses are. The harbor will experience underwater docks, and the marina has had water inside the building and has had to close.	Medical Centers (non-hospital)	Not applicable
Area: Concentration of Residences	Residents are located along the shoreline and experience flood damage during high water events.	Natural Resources	No known impacts other than flooding and runoff reported elsewhere.
Bridges	There are 11 bridges in the Town: one bridge is on Route 3 that the state is replacing, one bridge is deteriorating and is nearly unusable within the Town and is on Gameclub Road (the Town records state this is a culvert, but measurements are a bridge). Some other bridges are from the early 1900's and have walls that are cracking on top. All of the Town bridges are at risk for flooding and	Neighborhoods	No known impacts
	a bridge inventory is needed to determine what bridges need to be upsized.		
City Hall/Courthouse	The Town Hall is connected to the Town Barn and does not have a backup generator.	Parks and Recreational Sites	No known impacts
College/University	Not applicable	Place of Worship	There is one church in Town that had wind damage to the roof. The roof was fully replaced with a metal roof.
Community Centers/Hubs	The community center is attached to the fire hall.	Private Property	High water events in the lake have flooded and iced over private roads which impacts individuals that are at camps that are reliant on those roadways.
Community Activities: major local events including festivals and economic drivers such as beaches, skiing, farming, fishing, etc.	The Town has a pavilion that people can rent out for events and the Town also has a performing arts center. Both are located on a hill and have not been impacted by known flooding; however, wind related events including fallen trees and wires have occurred. No property damages have been reported.	Public Transportation	Not applicable

Community Asset	Hazard Impacts and Asset Vulnerabilities	Community Asset	Hazard Impacts and Asset Vulnerabilities
Cultural/Historic Buildings/Sites	There are trees that are located around a protected log cabin that may be knocked onto the cabin if strong winds occurred in the area.	Schools (K-12)	Not applicable
Culverts	The Town is replacing a few roads and plans to redo the culverts on them as they replace the roads. There are numerous culverts that are of concern, including metal culverts that are rotting out. Rays Bay Road near the creek is undersized greatly.	Small Businesses	See above
Elder-care Facilities	No known impacts	Supermarkets/Grocery Stores	The dollar store experiences wind damages.
Fire/Police Stations	No known impacts	Transportation - Mobile Asset Storage	Not applicable
Gas Stations	The gas stations at the Marina have experienced flooding and water can get into the tanks.	Utilities	The Town owns the drinking water facility, a water tower and a water plant. There is a slow leak on the outside of the water tower which is of concern. The drinking water facility is also attached to an old barn that is expected to collapse due to aging infrastructure and this facility should be relocated and rebuilt to ensure better access to the facility.
Highways	See local roads.	Wastewater Treatment Plants	Not applicable
Hospitals	Not applicable	Waterfront	See other sections in the table.
Other	No known impacts	Drinking Water Resources	The Town owns the drinking water facility, a water tower and a water plant. There is a slow leak on the outside of the water tower which is of concern. The drinking water facility is also attached to an old barn that is expected to collapse due to aging infrastructure and this facility should be relocated and rebuilt to ensure better access to the facility.

24.4.5 Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I.

The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions. Impacts from a particular hazard may have decreased due to an implemented project or relocation of an asset that was previously at risk. Alternatively, risk may have increased because population has increased in a hazard prone area.

Table F. Hazard Ranking

Hazard Name	Frequency (2011 – present): Increased, Decreased, Stayed the Same	Impacts (2011 – present): Increased, Decreased, Stayed the Same	Description of frequency and impacts (2011 – present):	Future Events (present – 2030): Will Increase, Decrease, Stay the Same	2025 Ranking
Dam Failure	Not a concern	Not a concern	-	Not a concern	Low
Drought	Increased	Increased	-	Increase	Medium
Extreme Temperature	Heat- Increase Cold- Increase	Heat- Increase Cold- Increase	-	Heat- Increase Cold- Increase	High
Flood	Increase	Increase	-	Increase	High
Geologic Hazards	Earthquake- Increase Landslide- Remain Same	Earthquakes- stayed the same Landslide- stay the same	-	Earthquakes- Increase Landslide- Stay the same	Low
Severe Weather	Increase	Increase	-	Increase	High
Severe Winter Weather	Increase	Increase	-	Increase	High
Wildfire	Stay the same	Stay the same	-	Stayed the Same	Low

24.4.6 Critical Facilities

Table G. Critical Facilities Flood Vulnerability

		Vulnerability			
Name	Туре	1% Annual Chance Event	0.2% Annual Chance Event	Addressed by Proposed Action	Already Protected to 0.2% Flood Level
None Identified					

Source: Jefferson County 2024; New York State Department of Environmental Conservation 2023, 2024; Federal Communications Commission 2024; HIFLD 2023, 2024; NYS Department of Health 2024; National Plan and Provider Enumeration System 2023; USACE 2024; NYS Department of Transportation 2023

The municipality does not have any identified high hazard potential dams within the jurisdiction.

24.5 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table H through Table L.

24.5.1 Development and Permitting

Table H. Development and Permitting Capability

Question	Answer
Does your municipality or the county issue building permits for development in your community?	Jefferson County
What is your process for tracking building permits?	Town issues a zoning permit- then go to the County
Are permits tracked by hazard area? (For example, floodplain development permits.)	Floodplain and wetlands
Does your community have a buildable land inventory? If yes, please describe.	Yes, build up and not out by the water.

Table I. Number of Building Permits for New Construction Issued Since the Previous HMP

	New Construction Permits Issued				
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total	
2019					
Total Permits	4	0	0	4	
Permits within SFHA	0	0	0	0	
2020					
Total Permits	6	0	0	6	
Permits within SFHA	0	0	0	0	
2021					
Total Permits	8	0	0	8	
Permits within SFHA	0	0	0	0	
2022					
Total Permits	5	0	0	5	
Permits within SFHA	0	0	0	0	
2023					
Total Permits	15	0	0	15	
Permits within SFHA	0	0	0	0	
2024					
Total Permits					
Permits within SFHA					

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

Table J. Recent Major Development and Infrastructure from 2011 to 2018

Property or Development Name	_ ·	**			Description / Status of Development
None Identified					

Table K. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	7.		Y		Description / Status of Development
None Identified					

Table L. Known or Anticipated Major Development and Infrastructure in the Next Five Years

	, , , , , , , , , , , , , , , , , , ,		Location (address and/or block and lot)		Description / Status of Development
Waste Management Plant	Waste Management Plant	TBD	TBD	None Identified	In discussion. The Town has the funding available.

24.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

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

24.6.1 NFIP Statistics

Table M summarizes the NFIP policy and claim statistics for Henderson.

Table M. Henderson NFIP Summary of Policy and Claim Statistics

18
28
\$234,388.59
1
0
0

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

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

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

Source: FEMA 2024

24.6.2 National Flood Insurance Program (NFIP) Flood Vulnerability Summary

The HMP Team provided information on participation in and continued compliance with the NFIP in the table below.

Table N. NFIP Summary

NFIP Topic	Comments
Describe areas prone to flooding in your jurisdiction.	When water is not let out, there is significant flooding around the lakeshore that occurs during high water levels which impacts properties and the marina as well. The Harbor, County Route 123, and private roads are located in the floodplain. Town has delivered sandbanks to help with flooding.
Who is the Community Floodplain Administrator (FPA)? Do they serve any roles other than FPA? Do they have adequate training and capacity for this role?	Eric Sheldon, Zoning Enforcement Officer
What local department is responsible for floodplain management?	Zoning Enforcement
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the local law number or municipal code of your flood damage prevention ordinance?	Local Law #3 of 1994
When was the latest effective Flood Insurance Rate Map (FIRM) adopted, if applicable?	May 18, 1992
Explain NFIP administration services (e.g., permit review, inspections, engineering capability, GIS, etc.)	Permit Review
What are the barriers to running an effective NFIP program in your community, if any?	Training could be used.

NFIP Topic	Comments
Does your floodplain management staff need any assistance or training to support its floodplain management program? If yes, what type of assistance/training is needed?	Localized training - Someone to come through the Town and help identify improvement areas and issues.
How do you make Substantial Damage determinations? What is the process to make sure these structures are brought into compliance?	Inspections are performed.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Zoning Officer
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Not in recent years (possibly 2017)
Does the community track the number of buildings in the floodplain? If so, how many structures are in special flood hazard area (SFHA)?	Yes, buildings are tracked.
How many structures (residential and non-residential) are exposed to flood risk within the community outside of the regulatory maps?	Unknown
Does the community maintain elevation records? If yes, please describe.	Zoning does this
Are there any repetitive loss (RL) or severe repetitive loss (SRL) structures in the community? If yes, how many of each category?	One Repetitive Loss
Describe any areas of flood risk with limited NFIP policy coverage.	Some privately owned roads are limited to get to. Snow has isolated people on these privately owned roads and the Town is not responsible for clearing them. There was a fatality from a fire event and road access was limited. Some people do not have fire insurance.
How does the community teach property owners or other stakeholders about the importance of flood insurance?	Property owners express interest in flood insurance at a bank and the bank guides them.
What digital sources (like the FEMA Map Service Center, National Flood Hazard Layer) or non-regulatory tools does your community use?	The Town has a wetland map



NFIP Topic	Comments
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Planning and Zoning reviews zoning permit requests.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	CAC: December 20, 2006 CAV: September 23, 2020
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No



24.7 JURISDICTIONAL CAPABILITY INVENTORY AND ASSESSMENT

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

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

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



24.7.1 Planning and Regulatory Capability and Integration

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

Ordinances

Jefferson County has an Emergency Management Ordinance which charges the County with maintaining a Comprehensive Emergency Management Plan to identify local measures that may prevent disasters, to develop local mechanisms to coordinate local resources and personnel for service during and after disasters, support the facilitation of delivery of services to aid citizens and reduce human suffering resulting from disaster, and to provide for short- and long-term recovery and redevelopment after disasters.

Jefferson County has Site Plan and Subdivision Codes that are relevant to development within a certain distance of County interests. Development applications in the areas across the County are sent to County Planning for review to promote coordination of land use decisions and local/county impacts. These County capabilities are inclusive of Henderson and the jurisdiction often partners with the County. To learn more about these capabilities please see Jefferson County's Jurisdictional Annex.

The HMP Team inventoried its existing ordinances against the full capability list of hazard mitigation-related capabilities. The absence of other kinds of ordinances was not considered a gap in local capabilities. The table below summarizes the ordinances currently in place in the Town.

Table O. Ordinances

Capability Type	In Place in Municipality	Comments	Responsible Department / Agency / Organization
Building Codes	Yes, Chapter 90 Fire Prevention and Building Construction	All of the communities in Jefferson County regulate construction through the use of a building code. The Town of Henderson adheres to a building code through the County authority. Building codes regulate construction standards and are developed for specific geographic areas of the country. They consider the type, frequency, and intensity of hazards present in the region. Structures built to applicable building codes are inherently resistant to many hazards such as strong winds, floods, and earthquakes. Due to the location specific nature of the building codes, these are very valuable tools for mitigation.	Town Administration
Flood Damage Prevention Ordinance	Yes, Local Law #3 of 1994 (Chapter 94)	The purpose of this chapter is to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to: Regulate uses which are dangerous to health, safety and property due to water or erosion hazards or which result in damaging increases in erosion or in flood heights or velocities Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction Control the alteration of natural floodplains, stream channels and natural protective barriers which are involved in the accommodation of flood waters Control filling, grading, dredging and other development which may increase erosion or flood damage. Regulate the construction of flood barriers which will unnaturally divert floodwaters, or which may increase flood hazards to other lands	Town Board

Capability Type	In Place in Municipality	Comments	Responsible Department / Agency / Organization
		Qualify for and maintain participation in the National Flood Insurance Program	
Real Estate Disclosure Requirements	Yes, Property Condition Disclosure Act, NY Code - Article 14 §460-467	In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.	NYS Department of State, Real Estate Agent
Site Plan Code	Yes	Site plan review requirements are used to evaluate proposed development prior to construction. An illustration of the proposed work, including its location, exact dimensions, existing and proposed buildings, and many other elements are often included in the site plan review requirements. The site plan reviews offer an opportunity to incorporate mitigation principles, such as ensuring that the proposed development is not in an identified hazard area and that appropriate setbacks are included.	
Subdivision Code	Yes, Chapter 135 Subdivision of Land	Subdivision ordinances offer an opportunity to account for natural hazards prior to the development of land as they formulate regulations when the land is subdivided. Subdivision designs that incorporates mitigation principles can reduce the exposure of future development to hazard events.	Planning Board
Zoning/Land Use Code	Yes, Chapter 150 Zoning Laws	Zoning is a useful tool to consider when developing a mitigation strategy. It can be used to restrict new development, require low-density development, and designate specific uses (e.g. recreational) in the hazard prone areas. Private property rights must be considered, but enacting a zoning ordinance can reduce or potentially eliminate damages from future hazard events.	Town Administration

Plans

Jefferson County has an Agriculture Plan (Jefferson County Agricultural and Farmland Protection Plan, 2016); Climate Adaptation / Resilience Plan (North Country Regional Sustainability Plan, 2013); Comprehensive Emergency Management Plan; County Emergency Preparedness Assessment (CEPA); Continuity of Operations Plan (Jefferson County Government COOP – COG Plan, 2023); Economic Development Plan (Jefferson County Comprehensive Economic Development Strategy, 2021); Public Health Plan (Jefferson County Public Health Service Strategic Plan 2023-2027); Threat and Hazard Identification and Assessment (THIRA); Tourism Plan; Transportation Plan (Jefferson County Coordinated Transportation Plan for Mobility Services, 2021); and other recent plans that are all countywide in scope and implementation and are applicable to the Town of Henderson. To learn more about these capabilities please see Jefferson County's Jurisdictional Annex.

The HMP Team inventoried its existing plans against the full capability list of hazard mitigation-related capabilities. The absence of other kinds of plans was not considered a gap in local capabilities. The table below summarizes the plans currently in place.

Table P. Plans

Capability Type	In Place in Municipality	Comments	Responsible Department / Agency / Organization
Business / Downtown Revitalization / Development Plan	No	The Town is working on this and will address new businesses and Airbnb's, etc.	Planning Board
Comprehensive Plan	Yes, Comprehensive Land Use Plan for the Town of Henderson	A comprehensive plan is a document which illustrates the overall vision and goals of a community. It serves as a guide for the community's future and often includes anticipated demographics, land use, transportation, and actions to achieve desired goals. Integrating mitigation concepts and policies into a comprehensive plan provides a means for implementing initiatives through legal frameworks and enhances the opportunity to reduce the risk posed by hazard events.	Henderson Comprehensive Land Use Plan Committee
Emergency Operations Plan	Yes, County	Emergency response plans provide an opportunity for local governments to anticipate an emergency and plan the response accordingly. In the event of an emergency, a previously established emergency response plan can improve response and reduce negative effects as the responsibilities and means by which resources are deployed has been previously determined.	Planning Board
Local Waterfront Revitalization Plan	No	The Town is working on this, will address new businesses and Airbnb's, etc.	Planning Board
Sheltering Plan	No	Town has shelters and is able to efficiently move people where needed.	Planning Board

24.7.2 Administrative and Technical Capability

Jefferson County Code, Fire Prevention and Building Code department currently enforces the New York State Uniform Fire Prevention and Building Code in 31 municipalities that chose not to enforce the Code at the local level, including the Town of Henderson. The Department employs Code Enforcement Officers and clerical staff to ensure that new construction and areas of public assembly conform to the provisions of the State Uniform Code. Proper enforcement of the Code protects property and encourages quality development that enhances public safety and the economy of the County. The office's two major program responsibilities include existing and new building permit administration (i.e.: plan review, issuing permits, construction inspections and issuing certificates of occupancy) and mandated fire safety inspections.

Jefferson County has an Economic Development Commission (Jefferson County Comprehensive Economic Development Strategy); Emergency Management (Jefferson County Office of Fire & Emergency Management), County Department of Planning; County Public Health Department (including Administration and Finance, Home Healthcare Services, Medical Examiner's Office, Emergency Medical Services); County Highway Department,

among others, whose programs and services serve the entire County, including the Town of Henderson. To learn more about these capabilities please see Jefferson County's Jurisdictional Annex.

The HMP Team inventoried its existing Administrative and Technical Capabilities against the full capability list of hazard mitigation-related capabilities. The absence of other staff was not considered a gap in local capabilities. The table below summarizes staff and personnel resources.

Table Q. Administrative and Technical Capabilities

Capability Type	In Place in Municipality	Comments
Code Enforcement Official	Yes	Zoning Enforcement Official
Maintenance Programs	Yes	Highway Department plows and maintains trees
Mitigation Planning Committee	No	TBD
Mutual Aid Agreements	Yes	Jefferson County and neighboring municipalities
Planners or engineers with knowledge of land development and land management practices	Yes	Zoning Enforcement has one member that has knowledge of land development and management practices.
Planning Board	Yes	The Town has a Planning Board of five members.
Public Works/Highway Department	Yes	The Highway Department is responsible for maintaining roadways in the Town and has nine staff members. The Town also has a Water and Sanitation Department.
Zoning Board of Appeals	Yes	The Town has a Zoning Board of six members.
Other	No	-

24.7.3 Fiscal Capability

The table below summarizes financial resources available to Henderson.

Table R. Fiscal Capabilities

Capability Type	Has this funding capability been used since the last plan (2011)? If yes, please describe.
Community Development Block Grants (CDBG, CDBG-DR)	Yes, Community Center and Tennis Court
Capital improvement project funding	Yes, Salt Shed
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes, Water
Impact fees for homebuyers or developers of new development/homes	No

Capability Type	Has this funding capability been used since the last plan (2011)? If yes, please describe.
Stormwater utility fee	No
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	Yes, Map
Other Federal (non-FEMA) funding programs	Yes, CHIPs (culverts, etc.) and COVID money for radios
FEMA funding programs	Yes, HMP update with County
Other State funding programs	Actively seeking for sewer project
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

24.7.4 Education and Outreach Capability

The table below includes education and outreach programs and methods already in place that could be used to carry out mitigation activities and communicate information about hazards.

Table S. Education and Outreach Capabilities

Capability Type	Is this education and outreach capability currently in use in the Municipality? If yes, please describe.
Community Newsletter	Yes, website (Board updates this)
Hazard awareness campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, school programs, public events)	No
Hazard mitigation information available on your website	Yes, website updates
Local News	No, Town calls school/police
Natural disaster/safety programs in place for schools	N/A
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No
Public information officer or communications office	No

Capability Type	Is this education and outreach capability currently in use in the Municipality? If yes, please describe.
Social media for hazard mitigation education and outreach	Yes, Facebook page
Warning systems for hazard events	County
Other	No

24.7.5 Hazard Capability Assessment

Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. The HMP Team ranked the local government's capability to address risks and impacts of each hazard based on the risk and capability assessments performed above.

- Strong: Capacity exists and effectively manages the impacts of this hazard.
- Moderate: Capacity exists but is not used or needs some improvement.
- Weak: Capacity exists and needs substantial improvement
- None: Capacity does not exist.

Table T. Adaptive Capacity

Hazard	Strong, Moderate, Weak, None
Dam Failure	Moderate
Drought	Weak
Extreme Temperature	Moderate
Flood	Weak
Geological Hazards	Weak
Severe Storm	Moderate
Severe Winter Storm	Moderate
Wildfire	Weak

24.8 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

24.8.1 Past Mitigation Action Status

The tables below indicate progress on the Town's mitigation strategy identified in the 2011 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.



Status of Previous Mitigation Actions

HendersonT-01—Public Awareness	
Hazards Addressed	All
Lead Agency / Department	CPG Member
Supporting Agency / Department	Town Supervisor
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	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 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 form the FEMA Publications Warehouse and other appropriate sources). (public education)
Action Category	-
Current Status	In-Progress
Please describe the current status selection:	Project Underway
Next Steps	-
Include in the 2025 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Focus on social media, website updates and socially vulnerable populations.
If discontinue, explain why	-

HendersonT-02—Code Update	
Hazards Addressed	All
Lead Agency / Department	CPG Member
Supporting Agency / Department	Town Supervisor
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	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)
Action Category	-
Current Status	In-Progress
Please describe the current status selection:	Project Underway
Next Steps	-
Include in the 2025 HMP or Discontinue?	Include
If include, revise/reword as appropriate	-
If discontinue, explain why	-

HendersonT-03—Code Enforcement	
Hazards Addressed	All
Lead Agency / Department	CPG Member
Supporting Agency / Department	Town Supervisor
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Code enforcement: enforcement of NYS and Local Building Codes with Continual CEO training. (prevention)
Action Category	-
Current Status	In-Progress
Please describe the current status selection:	Project Underway
Next Steps	-
Include in the 2025 HMP or Discontinue?	Include
If include, revise/reword as appropriate	More training throughout; NFIP training
If discontinue, explain why	-

HendersonT-04—Comprehensive Plans	
Hazards Addressed	All
Lead Agency / Department	CPG Member
Supporting Agency / Department	Town Supervisor
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	I.B. Ensure that local comprehensive plans incorporate natural disaster mitigation techniques through a courtesy review of draft plans by the County Planning Department
Action Category	-
Current Status	In-Progress – Project Underway
Please describe the current status selection:	In Progress
Next Steps	-
Include in the 2025 HMP or Discontinue?	Include
If include, revise/reword as appropriate	-
If discontinue, explain why	-

HendersonT-05—Workshops	
Hazards Addressed	All
Lead Agency / Department	CPG Member
Supporting Agency / Department	Town Supervisor
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Hold periodic workshops for municipalities regarding zoning and planning issues that arise regarding natural hazards and hazard mitigation.
Action Category	-
Current Status	Proposed
Please describe the current status selection:	No Progress
Next Steps	-
Include in the 2025 HMP or Discontinue?	Include
If include, revise/reword as appropriate	-
If discontinue, explain why	-

HendersonT-06— Ayles Road	
Hazards Addressed	Flood
Lead Agency / Department	Town of Henderson
Supporting Agency / Department	Highway Department
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Ayles Road in the Town of Henderson. Seasonal flooding in both the Spring and Fall.
Action Category	-
Current Status	In-Progress
Please describe the current status selection:	Project Underway
Next Steps	-
Include in the 2025 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Part of the road was rebuilt, and ditching was done. Road is not complete yet
If discontinue, explain why	-

HendersonT-07— Shear Road	
Hazards Addressed	Flood
Lead Agency / Department	Town of Henderson
Supporting Agency / Department	Highway Department
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Shear Road in the Town of Henderson. Year-Round Flooding
Action Category	-
Current Status	In-Progress
Please describe the current status selection:	Project Underway
Next Steps	-
Include in the 2025 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Not year-round flooding; a little bit of flooding occurs. Issue with the bridge size and stability.
If discontinue, explain why	-

HendersonT-08— Tree Removal and Trimming	
Hazards Addressed	Wind, Tornado, Lightning, Winter Storm, Drought, Wildfire
Lead Agency / Department	Town of Henderson
Supporting Agency / Department	Highway Department
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Tree Removal and Trimming. Removal of dead & overgrown trees on County Route 123.
Action Category	-
Current Status	In-Progress
Please describe the current status selection:	Project Underway
Next Steps	-
Include in the 2025 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Resident issues in terms of tree trimming. This is the road the sewer is supposed to go through. There are flooding and freezing issues. Ice blocks drains up and contributes to additional flooding. Everything is on a large hill. The whole road needs to be rebuilt. If sewer project goes through, then road can redone.
If discontinue, explain why	-

HendersonT-09— Programmable Emergency Signs		
Hazards Addressed	All	
Lead Agency / Department	Town of Henderson	
Supporting Agency / Department	Highway Department; Emergency Management	
Action Location	N/A	
Summary of Original Problem Summary of Solution (Project)	Programmable Emergency Signs	
Action Category	-	
Current Status	Proposed	
Please describe the current status selection:	No Progress	
Next Steps	-	
Include in the 2025 HMP or Discontinue?	Include	
If include, revise/reword as appropriate	Need signs in general, not necessarily programmable.	
If discontinue, explain why	-	

24.8.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 2-1, Henderson identified the following mitigation efforts completed since the last HMP:

Maintaining and upgrading roadways and culvert pipes

24.8.3 Identified Issues

The Town of Henderson has identified the following vulnerabilities within their community for mitigation strategy development:

- The Town has reported flooding along Town Barn Road, Bishop Street, Alyes Road, County Route 123, Sand Road, and Shear Road and the Town is unaware as to why each of these roadway's flood.
- Recent storm events have resulted in severe rainfall which overwhelmed culverts and caused flooding due to undersized culverts and bridges. It is assumed that some culverts and bridges may be undersized and contribute to flooding. There are 11 total bridges in the Town, and the one located on Gameclub Road is nearly unusable (the Town records state this is a culvert, but measurements are that of a bridge). The Town also has a culvert on Rays Bay Road near the creek that is greatly undersized. The Town knows other culverts and bridges also need to be upsized but needs an inventory of where to focus on.
- The current comprehensive plan does not incorporate hazard mitigation principles and does not have a strategy to streamline the consideration of the following hazards into its future development and growth: Dam Failure, Drought, Extreme Temperature, Flood, Geologic Hazards, Severe Storm, Severe Winter Storm, Wildfire.
- The Town does not have a public education program on the preparation and mitigation of the hazards of concern. The Town also does not hold workshops or conduct outreach for vulnerable populations to ensure they are prepared for hazard events and can mitigate their properties more from identified hazards in the Town.
- The Town-owned Town Hall/Town Barn is unable to perform continuity of operations during power outage events as the facility lacks backup power.



- The Town owns a drinking water facility which is attached to an old barn that is deteriorating due to water damage and infrastructure age and is expected to collapse. The current location is also difficult to access so the building needs to be relocated. Additionally, the Town water tower has a slow leak depending on how full the tower is. The water tower currently has a portable generator and needs a fixed generator to perform continuity of operations.
- The Town will conduct a study to determine how to best mitigate the flooding and drainage issues along the road and will implement the best and most cost-effective solution. The Town would be able to more easily rebuild the road if the sewer project is approved at the Town.
- The Town has not updated many of the local codes and ordinances and does not have hazard specific information in many of codes. The zoning enforcement officer also needs more information on the updated NYS Codes and needs continued training in relation to NFIP, CEO and Building Codes.
- The Town does not have emergency warning signs to warn people passing through of incoming inclement weather events or delays which puts people at risk.



24.8.4 Proposed Hazard Mitigation Actions for the HMP Update

Henderson participated in the mitigation strategy workshop and identified hazard mitigation actions to reduce the risks and impacts of hazards the community ranked as high-risk. Hazard risk ranking was specific to each community in the County and was based on quantitative (i.e, analysis of the best available data) and qualitative risk assessment processes (i.e., evaluation of previous occurrences, likelihood of future occurrences and vulnerabilities to people and community services; buildings and critical infrastructure; the natural environment and other local priorities.

Implementation of these actions are dependent upon available funding (grants and local match availability) and local capacity and may be modified or omitted at any time based on the occurrence of new hazard events and changes in local priorities.

Volume I identifies fourteen evaluation criteria for prioritizing the mitigation actions. Below, Table U provides the prioritization criteria score for each proposed mitigation action.

Action 2025-HendersonT-01. Flood Prone Roadways

Lead Agency:	Town Highway Department		
Supporting Agencies:	County Highway Department; State DOT		
Hazards of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	The Town has reported flooding along Town Barn Road, Bishop Street, Alyes Road, County Route 123, Sand Road, and Shear Road and the Town is unaware as to why each of these roadway's flood.		
Description of the Solution:	The Town will conduct flood studies to determine the best and most cost- effective solution to reduce flooding along Town Barn Road, Bishop Street, Alyes Road, County Route 123, Sand Road, and Shear Road. Once this solution is determined, the Town will implement the preferred solution.		
Estimated Cost:	TBD		
Potential Funding Sources:	HMGP, FMA, Annual Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 2, 3, 4, 6, 7		
Benefits:	Future mitigation projects may be identified that will further increase overall community resiliency to flooding and other hazard events and flood risk will be reduced.		
Impact on Socially Vulnerable Populations:	 Areas vulnerable to flooding will be made aware to Town leadership and first responders which can place an emphasis on controlled future development. If cost-effective mitigation actions are identified, they may be implemented in flood prone areas that could reduce their overall risk to loss of life and property. 		
Impact on Future Development:	Flood insurance costs may decrease.		
Impact on Critical Facilities/Lifelines:	 Transportation routes will be more likely to remain open if flooding is mitigated along them. Hydration systems may remain potable for community usage if projects are identified to protect the existing infrastructure from flooding. 		
Impact on Capabilities:	This study will identify opportunities for mitigation funding to be spent in the areas in which it is most needed to increase resiliency and decrease damage from flood events.		
Climate Change Considerations:	Consideration should be taken to ensure any projects conducted have accounted for increased extreme rainfall events.		
Mitigation Category	Natural Systems Protection, Structure and Infrastructure Projects		
CRS Category	Property Protection, Preventative Measures		
Priority	High		
Alternative	Action	Evaluation	
	No action	-	
	Relocate all flood-prone road system	Not feasible	
	Raise all flood prone roads	Cost prohibitive	



Action 2025-HendersonT-02. Bridge and Culvert Upsize and Inventory

Lead Agency:	Town Highway Department	
Supporting Agencies:	Town Administration	
Hazards of Concern:	Flood, Severe Storm, Severe Winter Storm	
Description of the Problem:	Recent storm events have resulted in severe rainfall which overwhelmed culverts and caused flooding due to undersized culverts and bridges. It is assumed that some culverts and bridges may be undersized and contribute to flooding. There are 11 total bridges in the Town, and the one located on Gameclub Road is nearly unusable (the Town records state this is a culvert, but measurements are that of a bridge). The Town also has a culvert on Rays Bay Road near the creek that is greatly undersized. The Town knows other culverts and bridges also need to be upsized but needs an inventory of where to focus on.	
Description of the Solution:	The Town will contract an engineer to complete an engineering survey of culverts and bridges on Gameclub Road and Rays Bay Road that are undersized and contribute to flooding to determine the proper size necessary to provide stormwater capacity. The Town Highway Department will complete the necessary upsizing for these culverts and bridges. The Town will also continue to compile a Culvert and Bridge Inventory that details the status and damage of culverts and bridges in the Town and will acquire necessary funding to ensure proper sized drainage.	
Estimated Cost:	TBD after Survey and Inventory	
Potential Funding Sources:	HMGP, FMA, CHIPS, Town Budget	
Implementation Timeline:	Within 5 Years	
Goals Met:	1, 2, 3, 4, 6, 7	
Benefits:	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.	
Impact on Socially Vulnerable Populations:	Areas that were previously vulnerable to frequency or severe flooding events will be less likely to be impacted by flooding events.	
Impact on Future Development:	Future development in the impacted area will be less likely to be flooded.	
Impact on Critical Facilities/Lifelines:	 Transportation routes are more likely to remain open Evacuation routes will remain intact. Access to health and medical facilities will be maintained, both for healthcare workers and the population who require treatment for injuries and illness. 	
Impact on Capabilities:	Identifying the culverts that are at greatest risk of damage or failure can allow resource staging to take place where the need is greatest ahead of a flood event.	
Climate Change Considerations:	Climate change is likely to result in more frequent and severe rainfall events. This action upsizes culvert sizes to meet changing stormwater needs as the result of climate change.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Preventative Measures, Property Protection, Structural Flood Control Projects	
Priority	High	
Alternative	Action Evaluation	

No action	-
Remove roadway	Roadway cannot be removed
Raingardens	Raingardens are unlikely to be able to absorb enough stormwater to prevent flooding during severe rainfall events.

Action 2025-HendersonT-03. Comprehensive Plan Update

Lead Agency:	Town Planning	
Supporting Agencies:	Town Administration	
Hazards of Concern:	Dam Failure, Drought, Extreme Temperature, Flood, Geologic Hazards, Severe Storm, Severe Winter Storm, Wildfire	
Description of the Problem:	The current comprehensive plan does not incorporate hazard mitigation principles and does not have a strategy to streamline the consideration of the following hazards into its future development and growth: Dam Failure, Drought, Extreme Temperature, Flood, Geologic Hazards, Severe Storm, Severe Winter Storm, Wildfire.	
Description of the Solution:	The Town will update its comprehens comprehensive plan incorporates ha courtesy review or draft plans by the	zard mitigation techniques through a
Estimated Cost:	Staff Time	
Potential Funding Sources:	Town Budget	
Implementation Timeline:	Within 5 Years	
Goals Met:	1, 2, 3, 4, 5, 6, 7	
Benefits:	This action will have the Town update its comprehensive plan, which has not been updated in many years. The integration of hazard mitigation principles will present the opportunity for the Town to identify areas of the Town which may be impacted by hazards and plans for future land use accordingly.	
Impact on Socially Vulnerable Populations:	The inclusion of hazard mitigation principles into the comprehensive plan may include discussions on how hazard risks may impact socially vulnerable populations in the Town.	
Impact on Future Development:	This action will have a direct impact on future land use in the Town, as the comprehensive plan guides land use principles in the Town.	
Impact on Critical Facilities/Lifelines:	Updating the comprehensive plan to include hazard mitigation principles may present an opportunity to discuss hazard risks to critical facilities and lifelines in the Town.	
Impact on Capabilities:	This action will update an already existing planning capability of the Town, making it more resilient.	
Climate Change Considerations:	As impacts from climate change are increasingly felt, the contents of the Town's comprehensive plan will need to be updated.	
Mitigation Category	Local Plans and Regulations	
CRS Category	Preventative Measures	
Priority	High	
Alternative	Action	Evaluation
	No action	-
	Integrate hazard mitigation principles in only plan elements	The plan will miss integration opportunities in the comprehensive plan main document
	Integrate hazard mitigation principles in only comprehensive plan main document	The plan will miss integration opportunities in the plan elements

Action 2025-HendersonT-04. Public Awareness Program and Workshop

Lead Agency:	Town Planning		
Supporting Agencies:	Town Administration		
Hazards of Concern:	Dam Failure, Drought, Extreme Temperature, Flood, Geologic Hazards, Severe Storm, Severe Winter Storm, Wildfire		
Description of the Problem:	The Town does not have a public education program on the preparation and mitigation of the hazards of concern. The Town also does not hold workshops or conduct outreach for vulnerable populations to ensure they are prepared for hazard events and can mitigate their properties more from identified hazards in the Town.		
Description of the Solution:	The Town will maintain a web presence and a flyer distribution program on the preparation and mitigation ideas for the hazards of concern in the Town. The Town will also hold periodic workshops for residents regarding zoning and planning concerns regarding hazards and hazard mitigation.		
Estimated Cost:	Staff Time		
Potential Funding Sources:	Town Budget		
Implementation Timeline:	Within 5 Years; ongoing once establ	shed	
Goals Met:	1, 2, 4, 5, 6, 7		
Benefits:	This action will ensure there is an individual working to identify and work with the socially vulnerable populations in the Town. Furthermore, this action will create opportunities to educate and inform populations on hazard risks.		
Impact on Socially Vulnerable Populations:	Socially vulnerable populations in the Town will become educated on hazards and risks. The Town will identify individuals to identify and work with these populations to ensure the most up-to-date information is being shared.		
Impact on Future Development:	Not applicable		
Impact on Critical Facilities/Lifelines:	Educating populations on hazard risk and how to mitigate the risks can decrease the demand for utilities and emergency services including health and medical, law enforcement, and search and rescue.		
Impact on Capabilities:	This action would build upon the Town's already existing public education and outreach program.		
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate-related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
Mitigation Category	Education and Awareness Programs		
CRS Category	Public Information		
Priority	High		
Alternative	Action	Evaluation	
	No action	-	
	Rely on state or federal resources	Resources may be generalized and not specific to the risks in the Town	
	Use only a few methods for distribution	Using only a few methods of distribution may hinder socially vulnerable populations from receiving guidance	

Action 2025-HendersonT-05. Town Hall Generator

Lead Agency:	Town Highway Department		
Supporting Agencies:	Town Administration		
Hazards of Concern:	Extreme Temperature, Flood, Geologic Hazards, Severe Storm, Severe Winter Storm, Wildfire		
Description of the Problem:		arn is unable to perform continuity of nts as the facility lacks backup power.	
Description of the Solution:	The Town will conduct a generator study to determine what sized generator is needed to power to Town Hall/Town Barn in the event of a power outage. The Town will then acquire funding to purchase and install a fixed mounted diesel-powered generator and necessary electrical components to supply backup power to the Town Hall/Town Barn.		
Estimated Cost:	TBD		
Potential Funding Sources:	HMGP, Community Facilities Grant F Performance Grants (EMPG) Progra		
Implementation Timeline:	Within 5 Years		
Goals Met:	1, 2, 6, 7		
Benefits:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
Impact on Future Development:	This action results in protection of a critical facility that could support future development.		
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of a critical facility and its essential functions during a power outage.		
Impact on Capabilities:	This action ensures continuity of operations to maintain capabilities.		
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
Mitigation Category	Structure and Infrastructure Projects		
CRS Category	Emergency Services		
Priority	High		
Alternative	Action	Evaluation	
	No action	-	
	Microgrid	Costly and difficult to implement.	
	Solar panels and battery backup	Solar power is unlikely to be able to provide battery power for extended power failure events.	

Action 2025-HendersonT-06. Town Drinking Water Facility

Lead Agency:	Town Planning		
Supporting Agencies:	Town Administration		
Hazards of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	The Town owns a drinking water facility which is attached to an old barn that is deteriorating due to water damage and infrastructure age and is expected to collapse. The current location is also difficult to access so the building needs to be relocated. Additionally, the Town water tower has a slow leak depending on how full the tower is. The water tower currently has a portable generator and needs a fixed generator to perform continuity of operations.		
Description of the Solution:	The Town will conduct a study to determine the best location for the relocated drinking water facility and will ensure the facility is constructed to withstand hazard events. The Town will also repair the leak at the water tower and will conduct a study to determine the correct sized generator needed at the water tower and then will acquire the funding for the purchase and installation of the generator.		
Estimated Cost:	TBD after study		
Potential Funding Sources:	HMGP, Town Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 2, 3, 4, 6, 7		
Benefits:	This action will ensure the Town has a protected drinking water source that is reliable.		
Impact on Socially Vulnerable Populations:	The Town residents will have access to a reliable drinking water source with redundant power to ensure access during outages.		
Impact on Future Development:	Future development and infrastructure will have access to a reliable drinking water source with back up power to ensure access during power outages.		
Impact on Critical Facilities/Lifelines:	The drinking water infrastructure is considered to be a critical facility to the Town.		
Impact on Capabilities:	This action ensures the Town will be able to supply residents with drinking water that has redundant backup power.		
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
Mitigation Category	Structure and Infrastructure Projects		
CRS Category	Property Protection	·	
Priority	High		
Alternative	Action	Evaluation	
	No action	-	
	Rely on well water	Residents are hooked up the Town water source	
	Municipal Agreement for water	May not be the best and most cost effective option for the Town	

Action 2025-HendersonT-07. County Route 123

Lead Agency:	County Highway	
Supporting Agencies:	Town Highway	
Hazards of Concern:	Flood, Severe Storm, Severe Winter Storm	
Description of the Problem:	There are flooding and freezing issues along County Route 123 and ice tends to block the drains up and contributes to additional flooding due to the large hill that this road is on.	
Description of the Solution:	The Town will conduct a study to determine how to best mitigate the flooding and drainage issues along the road and will implement the best and most cost-effective solution. The Town would be able to more easily rebuild the road if the sewer project is approved at the Town.	
Estimated Cost:	TBD after study	
Potential Funding Sources:	HMGP, Town Budget	
Implementation Timeline:	Within 5 Years	
Goals Met:	1, 2, 3, 6, 7	
Benefits:	Future mitigation projects may be identified that will further increase overall community resiliency to flooding and other hazard events and flood risk will be reduced.	
Impact on Socially Vulnerable Populations:	 Areas vulnerable to flooding will be made aware of Town leadership and first responders which can place an emphasis on controlled future development. If cost-effective mitigation actions are identified, they may be implemented in flood prone areas that could reduce their overall risk to loss of life and property. 	
Impact on Future Development:	Flood insurance costs may decrease.	
Impact on Critical Facilities/Lifelines:	 Transportation routes will be more likely to remain open if flooding is mitigated along them. Hydration systems may remain potable for community usage if projects are identified to protect the existing infrastructure from flooding. 	
Impact on Capabilities:	This study will identify opportunities for mitigation funding to be spent in the areas in which it is most needed to increase resiliency and decrease damage from flood events.	
Climate Change Considerations:	Consideration should be taken to ensure any projects conducted have accounted for increased extreme rainfall events.	
Mitigation Category	Natural Systems Protection, Structure and Infrastructure Projects	
CRS Category	Property Protection, Preventative Measures	
Priority	High	
Alternative	Action	Evaluation
	No action	-
	Relocate all flood-prone road system	Not feasible
	Raise all flood prone roads	Cost prohibitive

Action 2025-HendersonT-08. Code Update and Zoning Enforcement Training

Lead Agency:	Zoning Enforcement			
Supporting Agencies:	Town Planning			
Hazards of Concern:	Flood, Geologic Hazards			
Description of the Problem:	The Town has not updated many of the local codes and ordinances and does not have hazard specific information in many of codes. The zoning enforcement officer also needs more information on the updated NYS Codes and needs continued training in relation to NFIP, CEO and Building Codes.			
Description of the Solution:	integrate hazard specific information	The Town will review existing local codes and ordinances and will integrate hazard specific information where applicable. The zoning enforcement officer will also obtain training on the NYS Building Codes, NEIP, and CEO		
Estimated Cost:	Staff Time			
Potential Funding Sources:	Town Budget			
Implementation Timeline:	Within 5 Years			
Goals Met:	1, 2, 4, 5, 6, 7			
Benefits:	Providing an opportunity for County and municipal staff and officials to become further educated on floodplain management practices and standards can aid in the development of plans and procedures in a way that is conscious of the flood hazard.			
Impact on Socially Vulnerable Populations:	Officials that are up to date on flood risk are more likely to encourage development outside areas of high flood risk, which is where socially vulnerable populations have historically resided. Safer dwellings may be developed in a less vulnerable location.			
Impact on Future Development:	Officials that understand the best practices in floodplain management will have the opportunity to influence future development and prevent unsafe building in flood hazard areas.			
Impact on Critical Facilities/Lifelines:	The opportunity will exist for leaders and operators of utilities and other essential services to attend training and provide direction on ways the prepare for, plan for, and prevent interruptions in service as a result of a flood.			
Impact on Capabilities:	Officials that attend training will have a more confident understanding of floodplain management principles and the basics of NFIP requirements and standards.			
Climate Change Considerations:	Climate change is likely to result in stronger and more frequent rainfall events that will contribute to increased flood risk			
Mitigation Category	Education and Awareness Programs			
CRS Category	Public Information			
Priority				
Alternative	Action	Evaluation		
	No action	-		
	Hire outside contractors for floodplain administration	Costly		
	Establish shared service agreements for floodplain administration from neighboring municipalities	Neighboring municipalities are unlikely to have the staff capacity to take on this role		

Action 2025-HendersonT-09. Programmable Emergency Signs

Lead Agency:	Town Administration		
Supporting Agencies:	County		
Hazards of Concern:	Dam Failure, Drought, Extreme Temperature, Flood, Geologic Hazards, Severe Storm, Severe Winter Storm, Wildfire		
Description of the Problem:	The Town does not have emergency warning signs to warn people passing through of incoming inclement weather events or delays which puts people at risk.		
Description of the Solution:	The Town will acquire funding to purchase and install programmable emergency signs to put up along major roadways to notify travels of poor weather conditions or severe events that have occurred.		
Estimated Cost:	TBD		
Potential Funding Sources:	Town Budget		
Implementation Timeline:	Within 5 Years		
Goals Met:	1, 6, 7		
Benefits:	People traveling in and through the Town will be better notified of any issues that may cause delay.		
Impact on Socially Vulnerable Populations:	People will be more knowledgeable about issues occurring in the Town.		
Impact on Future Development:	Not applicable		
Impact on Critical Facilities/Lifelines:	Emergency responders can use programable signs to warn people of dangers and to communicate emergencies.		
Impact on Capabilities:	This action strengthens the Town's ability to protect residents.		
Climate Change Considerations:	Climate change is likely to result in stronger and more frequent rainfall events that will contribute to increased flood risk that may impact roadways and contributes to more flooding.		
Mitigation Category			
CRS Category	Public Information, Emergency Servi	ces	
Priority			
Alternative	Action	Evaluation	
	No action	-	
	Elevate all roads	Not feasible	
	Rely on County	County may have other high priority locations for a sign	

Action 2025-HendersonT-10. Repetitive Loss Properties Mitigation

Lead Agency:	Floodplain Administrator	
Supporting Agencies:	Town Administration	
Hazards of Concern:	Flood, Severe Storm	
Description of the Problem:	Frequent flooding events have resulted in damage to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Town has one repetitive loss property, but other properties may be impacted by flooding as well.	
Description of the Solution:	Conduct outreach to 10 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information, and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).	
Estimated Cost:	TBD based on property	
Potential Funding Sources:	FMA, HMGP, match from property o	wners
Implementation Timeline:	Within 5 Years	
Goals Met:	2, 5, 6, 7	
Benefits:	Eliminates flood damage to homes a open space for the municipality and	
Impact on Socially Vulnerable Populations:	Removing homes from the floodplain immediately removes the risk to life and property. Socially vulnerable populations may be able to have houses elevated or acquired when it would otherwise be unaffordable.	
Impact on Future Development:	Increased outreach to homeowners within a flood prone area will limit construction in areas that are prone to hazard events. Homes may be acquired, which will remove those structures from the floodplain and prevent future development on those sites.	
Impact on Critical Facilities/Lifelines:	Removing structures from the floodplain decreases the demand on utilities and emergency services including health and medical, law enforcement, and search and rescue.	
Impact on Capabilities:	Removing the risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed.	
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, riverine flooding, and coastal flooding from sea level rise and storm surge events. Removing structures from the floodplain will reduce the response and recovery costs as a result of these events and decrease the loss of human life as a result of these events. Elevating structures will reduce the recovery costs as a result of these events.	
Mitigation Category	Structure and Infrastructure Project	
CRS Category	Property Protection	
Priority	High	
Alternative	Action	Evaluation
	No action	-
	Levee around floodplain	Costly, not enough room



. ,	Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.

Table U. Summary of Prioritization of Actions

		Scores for Evaluation Criteria															
Project Number	Project Name	Life Safety	Property Protection	Cost- Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives	Total	High / Medium / Low
Action 2025- HendersonT-01.	Flood Prone Roadways	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
Action 2025- HendersonT-02.	Bridge and Culvert Upsize and Inventory	1	1	1	1	1	0	1	1	1	1	1	1	1	1	12	High
Action 2025- HendersonT-03.	Comprehensive Plan Update	0	1	1	1	1	0	1	1	1	1	1	1	1	1	12	High
Action 2025- HendersonT-04.	Public Awareness Program and Workshop	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
Action 2025- HendersonT-05.	Town Hall Generator	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
Action 2025- HendersonT-06.	Town Drinking Water Facility	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
Action 2025- HendersonT-07.	County Route 123	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
Action 2025- HendersonT-08.	Code Update and Zoning Enforcement Training	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
Action 2025- HendersonT-09.	Programmable Emergency Signs	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High

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