



27 JURISDICTIONAL ANNEXES

27.1 TOWN OF LORRAINE

This jurisdictional annex to the Jefferson County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Town of Lorraine 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 Lorraine, describes who participated in the planning process, assesses Lorraine’s risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

27.2 HAZARD MITIGATION PLANNING TEAM

The Town of Lorraine 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: Sandra Clark, Town Supervisor Address: 20876 County Route 189, Lorraine, NY 13659 Phone Number: 315-232-2639 Email: lorrainesupervisor@gmail.com	Name/Title: Sarah Edington, Town Clerk Address: 20876 County Route 189, Lorraine, NY 13659 Phone Number: 315-232-2639 Email: townlorraineclerk@gmail.com
National Flood Insurance Program Floodplain Administrator	
Name/Title: Address: 20876 County Route 189, Lorraine, NY 13659 Phone Number: 315-232-2639 Email:	

27.3 COMMUNITY PROFILE

27.3.1 Community Classifications

Table B summarizes classifications for community programs available to Lorraine.

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	8B	-
NYSDEC Climate Smart Community	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-



N/A = Not applicable

27.3.2 Community Profile

The Town of Lorraine has an area of 39 square miles and is located in the southern part of the County. The Town is bordered by the Town of Adams and Town of Rodman to the north, the Town of Worth to the east, Oswego County to the south, and the Town of Ellisburg to the west. U.S. Highway 11 runs directly through the Town of Lorraine.

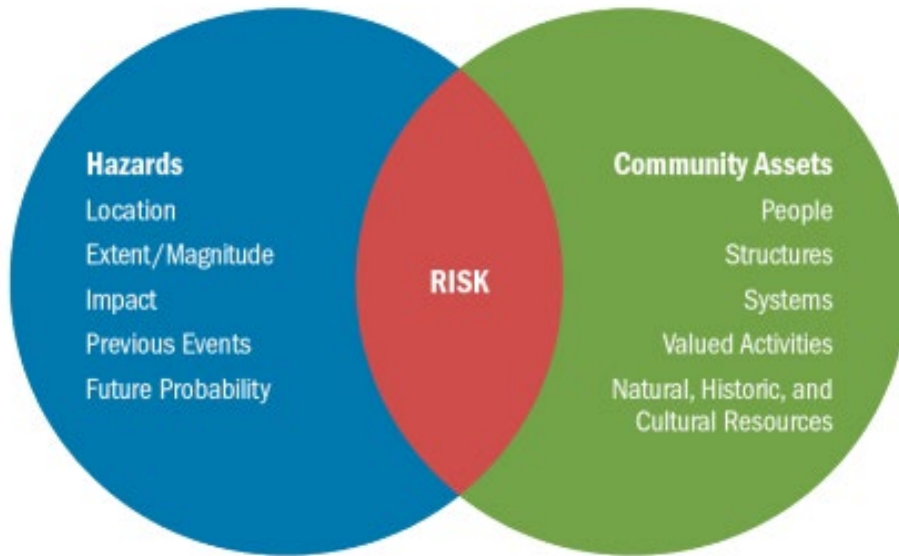
According to the U.S. Census, the 2020 population for the Town of Lorraine was 924 which makes up 0.8 percent of the county population. Data from the 2022 American Community Survey indicates that 2.3 percent of the population is 5 years of age or younger, 16.9 percent is 65 years of age or older, zero percent is non-English speaking, 13.6 percent is below the poverty threshold, and 15 percent is considered disabled.

27.4 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 Lorraine'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.

27.4.1 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 Lorraine has significant exposure. The maps show the location of potential new development, where available.



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

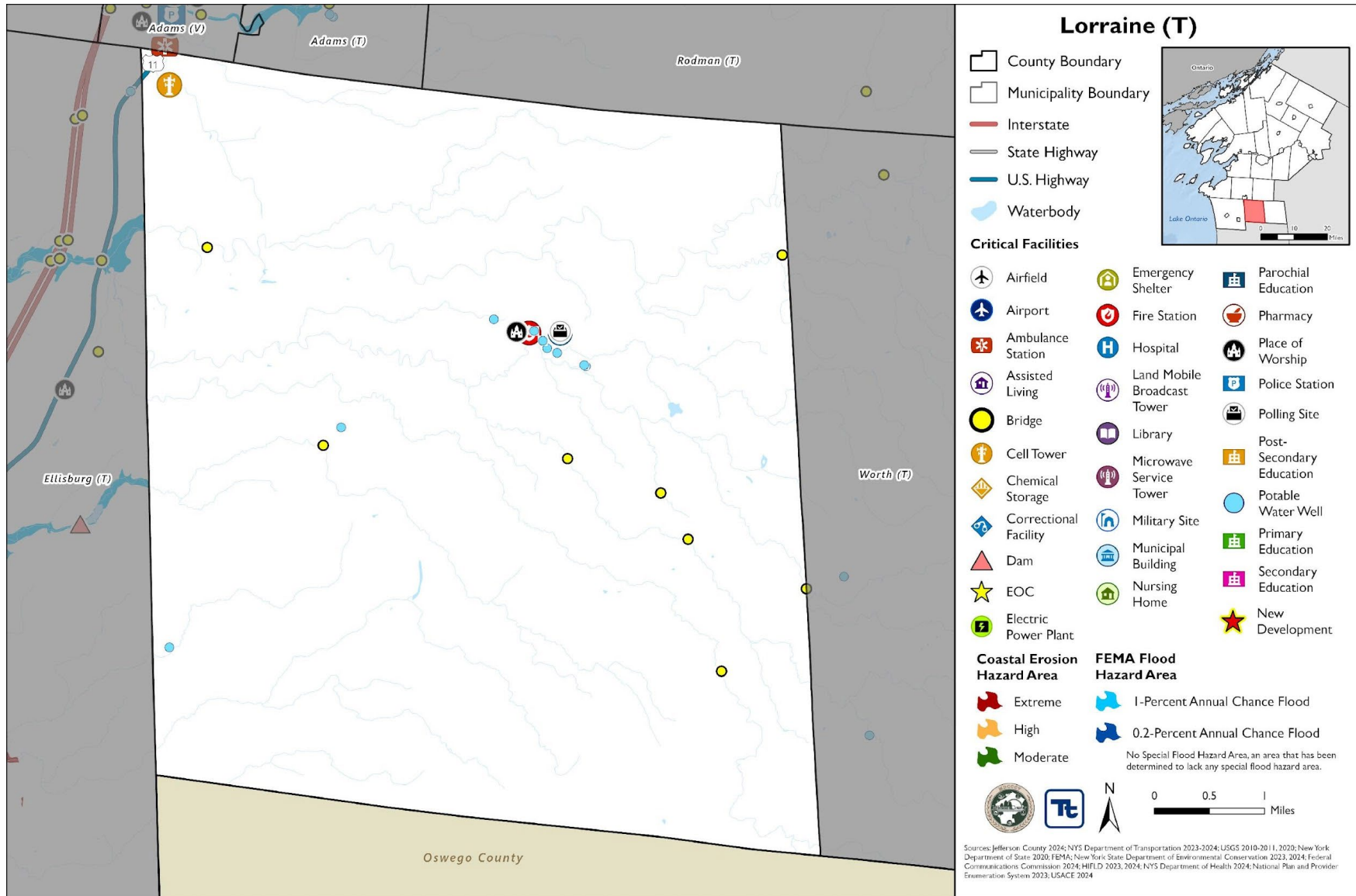
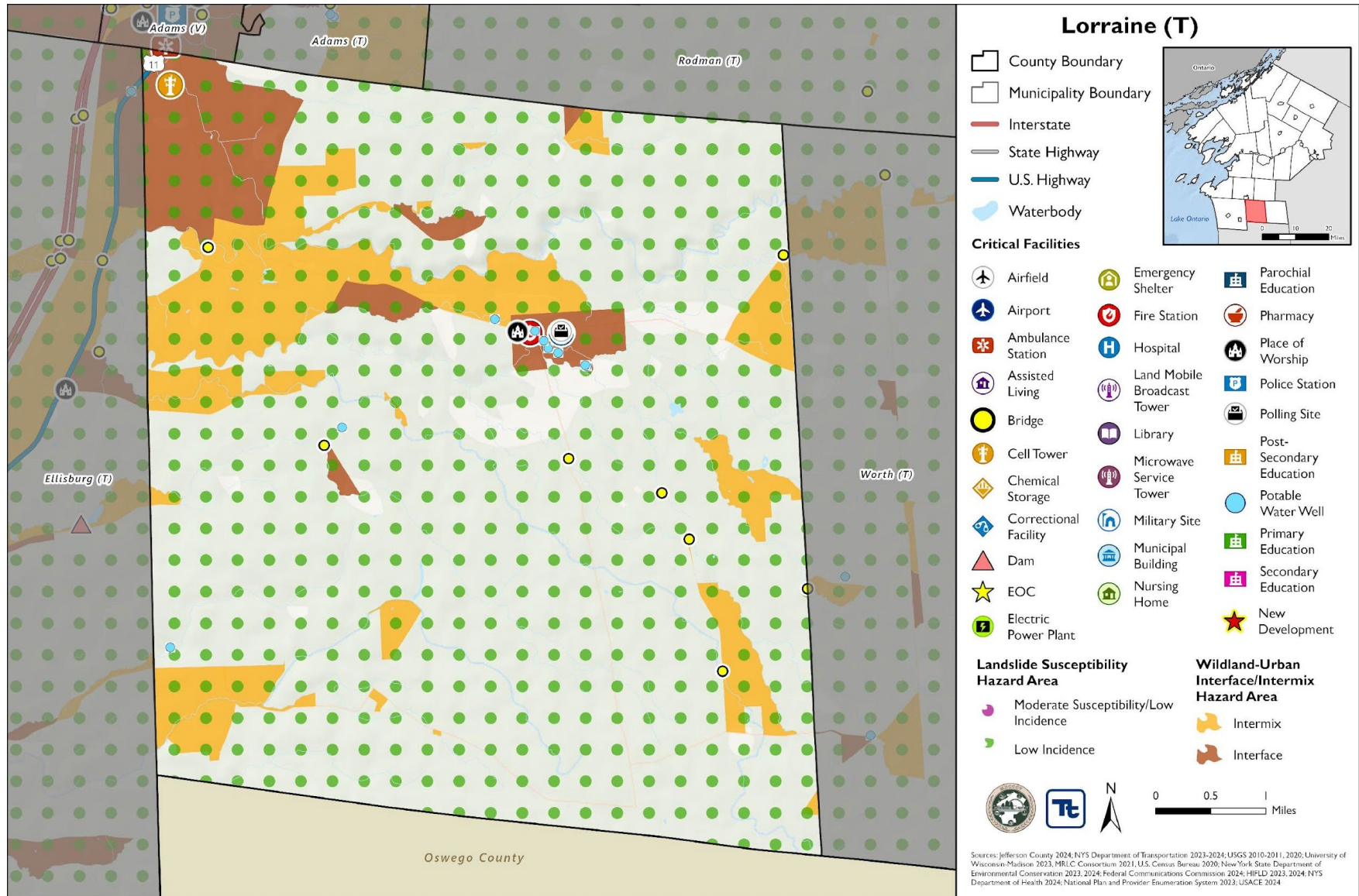




Figure 2. Lorraine Landslide and WUI Hazard Area Extent and Location Map





27.4.2 Previous Event History

The history of natural and non-natural hazard events in Lorraine 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 Lorraine during hazard events since the last hazard mitigation plan update.

Table C. Presidential Disaster Declaration History in Lorraine

Dates of Event	Event Type (Disaster Declaration)	Summary of Event	Summary of Damage and Losses in Lorraine
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 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 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 did not incur any documented damage or losses.
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	The Town did not incur any documented damage or losses.



Town of Lorraine

Dates of Event	Event Type (Disaster Declaration)	Summary of Event	Summary of Damage and Losses in Lorraine
		to 60 mph. Utilities reported tens of thousands of customers without power across the entire region.	

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable



27.4.3 Local Hazard Impacts Assessment

In the table below representatives from the Town of Lorraine 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 known impacts
Drought	Everyone in the Town is currently on well water, so a redundant water source could be needed.
Extreme Temperature	No known impacts
Flood	No known impacts
Geological Hazards	No known impacts
Severe Storm	During power outages, many people rely on generators for long term outages.
Severe Winter Storm	The elderly tend to have issues driving during intense winter storm events.
Wildfire	No known impacts

27.4.4 Vulnerable Community Assets

In the table below representatives from the Town of Lorraine 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	Community Asset	Hazard Impacts and Asset Vulnerabilities
Agriculture	No known impacts	Local Roads	The Town has 23 undersized culverts that are in need of replacement and lead to roadway flooding.
Airports	Not applicable	Major Employers	Not applicable
Area: Concentration of Businesses	Not applicable	Medical Centers (non-hospital)	Not applicable



Community Asset	Hazard Impacts and Asset Vulnerabilities	Community Asset	Hazard Impacts and Asset Vulnerabilities
Area: Concentration of Residences	No known impacts	Natural Resources	No known impacts
Bridges	No known impacts	Neighborhoods	No known impacts
City Hall/Courthouse	No known impacts	Parks and Recreational Sites	No known impacts
College/University	Not applicable	Place of Worship	No known impacts
Community Centers/Hubs	Not applicable	Private Property	Water shortage concerns due to all residents being on well water.
Community Activities: major local events including festivals and economic drivers such as beaches, skiing, farming, fishing, etc.	Not applicable	Public Transportation	Not applicable
Cultural/Historic Buildings/Sites	Not applicable	Schools (K-12)	Not applicable
Culverts	The Town has 23 undersized culverts that need replacements.	Small Businesses	No known impact
Elder-care Facilities	Not applicable	Supermarkets/Grocery Stores	Not applicable
Fire/Police Stations	The Lorraine Fire Department has a fixed backup generator.	Transportation - Mobile Asset Storage	Not applicable
Gas Stations	Not applicable	Utilities	Severe Storms & Winter Storms can cause power outages and there is concern of people's ability to heat their homes during extreme cold weather.
Highways	Not applicable	Wastewater Treatment Plants	Not applicable
Hospitals	Not applicable	Waterfront	Not applicable
Other	No known impacts	Drinking Water Resources	Water shortage concerns due to all residents being on well water.



27.4.5 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	Same	Same	Not applicable to the Town	Same	Low
Drought	Same	Same	-	Same	Medium
Extreme Temperature	Increased slightly	Same	Global warming leads to temperature changes	Same	Medium
Flood	Same	Same	Increase due to melting snow/runoff	Increase	High
Geologic Hazards	Same	Same	Not applicable to the Town	Same	Low
Severe Weather	Increase	Same	-	Same	High
Severe Winter Weather	Increase	Same	2024/2025 Winter season was the first bad winter in a while.	Increase - this was our first bad winter in awhile.	High
Wildfire	Same	Same	Not applicable to the Town	Same	Low

27.4.6 Critical Facilities

Table G. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level
		1% Annual Chance Event	0.2% Annual Chance Event		



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.



27.5 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.

27.5.1 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?	Enforcement Official issues permitting
What is your process for tracking building permits?	The County tracks permitting
Are permits tracked by hazard area? (For example, floodplain development permits.)	No, this is done through Building Codes through the County
Does your community have a buildable land inventory? If yes, please describe.	Yes, Assessor

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

	New Construction Permits Issued			Total
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	
2019				
Total Permits	1	0	0	1
Permits within SFHA	0	0	0	0
2020				
Total Permits	7	0	0	7
Permits within SFHA	0	0	0	0
2021				
Total Permits	1	0	0	1
Permits within SFHA	0	0	0	0
2022				
Total Permits	3	0	0	3
Permits within SFHA	0	0	0	0
2023				
Total Permits	4	0	0	4
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	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
None Identified					

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

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones	Description / Status of Development
None Identified					

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

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones*	Description / Status of Development
None Identified					

27.6 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

The Town does not participate in the National Flood Insurance Program.



27.7 JURISDICTIONAL CAPABILITY INVENTORY AND ASSESSMENT

Lorraine 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 Lorraine to identify opportunities for integrating mitigation concepts into ongoing Town procedures.



27.7.1 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 Lorraine 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
Growth Management	Yes	This information is captured in the Comprehensive Plan.	Planning Board
Real Estate Disclosure Requirements	Yes, Property Condition Disclosure Act, NY Code - Article 14 §460-467, 03/20/24	In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," the Property Condition Disclosure Act (PCDA) requires home sellers to disclose property conditions or pay a \$500 credit to the buyer at closing. Although the law mandates that a standardized disclosure statement be provided before the final purchase contract is signed, most sellers in New York typically opt to pay the credit instead of completing the statement. However, starting March 20, 2024, amendments to the PCDA will eliminate the \$500 credit option, requiring sellers to complete and deliver the disclosure statement before the buyer signs a binding contract. This change aims to ensure that buyers receive essential information about the property's condition, including new requirements for detailed flood zone and flood insurance disclosures. Integration with the Hazard Mitigation Plan (HMP) ensures these disclosures include relevant hazard information, promoting informed decision-making and risk awareness among buyers.	NYS Department of State, Real Estate Agent
Site Plan Code	Yes, Town Development Law-Article 6, April 2014	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	Planning Board



Capability Type	In Place in Municipality	Comments	Responsible Department / Agency / Organization
		identified hazard area and that appropriate setbacks are included.	
Subdivision Code	Yes, Local Law 2010-1: Subdivision Law	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, Town Development Law, April 2014	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.	Enforcement Officer

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 Lorraine. 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
Agriculture Plan	Yes	This is an element that is incorporated in Town of Lorraine Comprehensive Plan.	Planning Board
Business / Downtown Revitalization / Development Plan	Yes	This is an element that is incorporated in Town of Lorraine Comprehensive Plan.	Planning Board



Capability Type	In Place in Municipality	Comments	Responsible Department / Agency / Organization
Comprehensive Plan	Yes, Town of Lorraine Comprehensive Plan, July 2016	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.	Planning Board

27.7.2 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 Lorraine. 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	The Town has one Code Enforcement Official.
Grant Writer	Yes	The Tug Hill Commission provides these facilities.
Maintenance Programs	Yes	The Town Highway Department performs routine maintenance on roadways.
Personnel skilled or trained in website development	Yes	North Shore Solutions is contracted



Capability Type	In Place in Municipality	Comments
Planning Board	Yes	The Planning Board meets every other month in the Town municipal building and consists of five appointed residents.
Public Works/Highway Department	Yes	The Highway Department has one elected official and six full time employees.
Zoning Board of Appeals	Yes	The Zoning Board of Appeals hears requests for area variances, uses variances, temporary permits, special use permits and interpretations of the development law and is made up of three appointed residents.

27.7.3 Fiscal Capability

The table below summarizes financial resources available to Lorraine.

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)	No
Capital improvement project funding	No
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas, or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
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	No
Other Federal (non-FEMA) funding programs	No
FEMA funding programs	No
Other State funding programs	No
Open Space Acquisition funding programs	No



Capability Type	Has this funding capability been used since the last plan (2011)? If yes, please describe.
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

27.7.4 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	No
Hazard awareness campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, school programs, public events)	No
Hazard mitigation information available on your website	No
Local News	No
Natural disaster/safety programs in place for schools	No
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No
Public information officer or communications office	No
Social media for hazard mitigation education and outreach	No
Warning systems for hazard events	No



27.7.5 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	None
Drought	Weak
Extreme Temperature	None
Flood	Moderate
Geological Hazards	None
Severe Storm	Moderate
Severe Winter Storm	Strong
Wildfire	Weak

27.8 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.

27.8.1 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

LorraineT-01—Tree Cutting	
Hazards Addressed	Wind, Tornado, Lightning, Winter Storm, Drought, Fire
Lead Agency / Department	Lorraine Highway Department
Supporting Agency / Department	N/A
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Cutting trees can be easily implemented with little political and legal issues. Reasonable costs with multiple objectives.
Action Category	
Current Status	Proposed - Not Started In-Progress – Project Underway Completed Discontinued – No longer relevant Discontinued – Ongoing Capability
Please describe the current status selection:	
Next Steps	
Include in the 2025 HMP or Discontinue?	Discontinued – Ongoing Capability
If include, revise/reword as appropriate	
If discontinue, explain why	

LorraineT-02—Join the NFIP	
Hazards Addressed	Flood
Lead Agency / Department	Planning Board
Supporting Agency / Department	Town Board
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Join NFIP and establish a Flood Plan
Action Category	
Current Status	Proposed - Not Started In-Progress – Project Underway Completed Discontinued – No longer relevant Discontinued – Ongoing Capability
Please describe the current status selection:	
Next Steps	
Include in the 2025 HMP or Discontinue?	Discontinued – Ongoing Capability
If include, revise/reword as appropriate	
If discontinue, explain why	



LorraineT-03—Replace Culverts	
Hazards Addressed	Flood
Lead Agency / Department	Lorraine Highway Department
Supporting Agency / Department	-
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Replace culverts on various Town roads that are undersized.
Action Category	
Current Status	Proposed - Not Started In-Progress – Project Underway Completed Discontinued – No longer relevant Discontinued – Ongoing Capability
Please describe the current status selection:	
Next Steps	
Include in the 2025 HMP or Discontinue?	Include
If include, revise/reword as appropriate	See proposed action below.
If discontinue, explain why	

LorraineT-04—Creek Beds	
Hazards Addressed	Flood
Lead Agency / Department	Lorraine Highway Department
Supporting Agency / Department	N/A
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Clean creek beds on outlet side of bridges
Action Category	
Current Status	Proposed - Not Started In-Progress – Project Underway Completed Discontinued – No longer relevant Discontinued – Ongoing Capability
Please describe the current status selection:	
Next Steps	
Include in the 2025 HMP or Discontinue?	Discontinued – Ongoing Capability
If include, revise/reword as appropriate	
If discontinue, explain why	



LorraineT-05—Junk Law	
Hazards Addressed	Wind, Tornado
Lead Agency / Department	Planning Board
Supporting Agency / Department	Town Board; Enforcement
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Introduce a Junk Law to reduce damages caused by flying debris during high wind events.
Action Category	
Current Status	Proposed - Not Started In-Progress – Project Underway Completed Discontinued – No longer relevant Discontinued – Ongoing Capability
Please describe the current status selection:	
Next Steps	
Include in the 2025 HMP or Discontinue?	Discontinued – No longer relevant
If include, revise/reword as appropriate	
If discontinue, explain why	



LorraineT-06—Website	
Hazards Addressed	All Hazards
Lead Agency / Department	CPG Member
Supporting Agency / Department	Town Supervisor
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	The County will maintain a hazard mitigation and mitigation planning web presence local municipal websites link up to this site, if they haven't already done so); all participating jurisdictions to support preparation of a joint annual hazard mitigation and mitigation planning fact sheet and its distribution; periodic discussion of hazard mitigation and the mitigation plan at other regular local meetings; use of annual flyers, newsletters, advertisements, or radio/tv announcements, etc. at the discretion of each jurisdiction (incorporating as much free information as possible from FEMA Publications Warehouse and other appropriate sources).
Action Category	
Current Status	Proposed - Not Started In-Progress – Project Underway Completed Discontinued – No longer relevant Discontinued – Ongoing Capability
Please describe the current status selection:	
Next Steps	
Include in the 2025 HMP or Discontinue?	Discontinued – Ongoing Capability
If include, revise/reword as appropriate	
If discontinue, explain why	



LorraineT-07—Review Codes/Ordinances	
Hazards Addressed	All Hazards
Lead Agency / Department	CPG Member
Supporting Agency / Department	Town Supervisor
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Review existing local codes and ordinances against the identified hazards to determine whether there needs to be any amendments to address identified hazards and, where a need is identified, modify, or amend the codes or ordinances as applicable
Action Category	
Current Status	Proposed - Not Started In-Progress – Project Underway Completed Discontinued – No longer relevant Discontinued – Ongoing Capability
Please describe the current status selection:	
Next Steps	
Include in the 2025 HMP or Discontinue?	Discontinued – Ongoing Capability
If include, revise/reword as appropriate	
If discontinue, explain why	

LorraineT-08—Enforcement	
Hazards Addressed	All Hazards
Lead Agency / Department	CPG Member
Supporting Agency / Department	Town Supervisor
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	Enforcement of NYS and Local Building Codes with continual CEO training
Action Category	
Current Status	Proposed - Not Started In-Progress – Project Underway Completed Discontinued – No longer relevant Discontinued – Ongoing Capability
Please describe the current status selection:	
Next Steps	
Include in the 2025 HMP or Discontinue?	Discontinued – Ongoing Capability
If include, revise/reword as appropriate	
If discontinue, explain why	



LorraineT-09—Plan Integration	
Hazards Addressed	All Hazards
Lead Agency / Department	CPG Member
Supporting Agency / Department	Town Supervisor
Action Location	N/A
Summary of Original Problem Summary of Solution (Project)	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	Proposed - Not Started In-Progress – Project Underway Completed Discontinued – No longer relevant Discontinued – Ongoing Capability
Please describe the current status selection:	
Next Steps	
Include in the 2025 HMP or Discontinue?	Discontinued – Ongoing Capability
If include, revise/reword as appropriate	
If discontinue, explain why	

LorraineT-10—Workshops	
Hazards Addressed	All Hazards
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 - Not Started In-Progress – Project Underway Completed Discontinued – No longer relevant Discontinued – Ongoing Capability
Please describe the current status selection:	
Next Steps	
Include in the 2025 HMP or Discontinue?	Discontinued – No longer relevant
If include, revise/reword as appropriate	
If discontinue, explain why	



27.8.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in tables above, Lorraine identified the following mitigation efforts completed since the last HMP:

- Continued road maintenance and repairs

27.8.3 Identified Issues

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

- Recent storm events have resulted in severe rainfall which overwhelmed culverts and caused flooding due to undersized culverts and bridges. The Town has a culvert list where the Highway Department keeps track of upgrades and information related to the culverts in the Town. There are 23 total culverts in the Town that have been identified as needed to be upsized. The following culverts are listed by their ID number and need to be upsized: 18,19,20,24, 38, 40, 47, 48, 49, 50, 51, 61, 77, 81, 81, 85, 119, 120, 127, 141, 142, 148 175, and 176.
- The Town has water shortage concerns due to all Town residents being on well water and the increase in unequal distribution of precipitation which is leading to an increase in drought events
- Severe storms and winter storms cause power outages, and the Town is concerned about people's ability to heat their homes during extremely cold weather, especially older adults.



1.1.1 Proposed Hazard Mitigation Actions for the HMP Update

Lorraine 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-LorraineT-01. Culvert Upsizing

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. The Town has a culvert list where the Highway Department keeps track of upgrades and information related to the culverts in the Town. There are 23 total culverts in the Town that have been identified as needed to be upsized. The following culverts are listed by their ID number and need to be upsized: 18,19,20,24, 38, 40, 47, 48, 49, 50, 51, 61, 77, 81, 81, 85, 119, 120, 127, 141, 142, 148 175, and 176.	
Description of the Solution:	The Town will contract an engineer to complete an engineering survey of the culverts identified that are undersized including: 18,19,20,24, 38, 40, 47, 48, 49, 50, 51, 61, 77, 81, 81, 85, 119, 120, 127, 141, 142, 148 175, and 176. The Town Highway Department will complete the necessary upsizing for these culverts and bridges. The Town will acquire the necessary funding to ensure the purchase and installation of 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, 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:	<ul style="list-style-type: none"> • 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.
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Action 2025-LorraineT-02. Water Shortage

Lead Agency:	Town Administration	
Supporting Agencies:	Town Planning, Neighboring Municipalities	
Hazards of Concern:	Drought	
Description of the Problem:	The Town has water shortage concerns due to all Town residents being on well water and the increase in unequal distribution of precipitation which is leading to an increase in drought events	
Description of the Solution:	The Town will discuss the feasibility of connecting to an existing water source at a neighboring municipality. The Town will also look into the development of a Water Conservation ordinance so that the municipality can help prevent water shortages.	
Estimated Cost:	TBD after feasibility study	
Potential Funding Sources:	EPA, HMGP, Town Budget	
Implementation Timeline:	Within 5 Years	
Goals Met:	1, 2, 4, 5, 6, 7	
Benefits:	The Town will have improved capabilities to handle water shortage issues and will aim to improve water redundancies.	
Impact on Socially Vulnerable Populations:	The Town population will have more consistent access to water and will have more procedures developed to address water shortage.	
Impact on Future Development:	Future development would have access to a redundant water source and will be better protected from water shortages.	
Impact on Critical Facilities/Lifelines:	Some critical facilities need access to water to be able to perform continuity of operations.	
Impact on Capabilities:	The Town will have improved capabilities to handle water shortage issues and will aim to improve water redundancies.	
Climate Change Considerations:	Climate change is likely to result in more frequent unequal distribution of precipitation.	
Mitigation Category	Local Plans and Regulations, Education and Awareness Programs	
CRS Category	Preventative Measures, Emergency Services	
Priority	High	
Alternative	Action	Evaluation
	No action	-
	Rely on County	The county has numerous municipalities to serve
	Rely on Federal entities	The federal entities may not be as timely.



Action 2025-LorraineT-03. Emergency Sheltering Plan

Lead Agency:	Town Administration	
Supporting Agencies:	Town Planning	
Hazards of Concern:	Dam Failure, Drought, Extreme Temperature, Flood, Geologic Hazards Severe Weather, Severe Winter Weather, Wildfire	
Description of the Problem:	Severe storms and winter storms cause power outages, and the Town is concerned about people's ability to heat their homes during extremely cold weather, especially older adults.	
Description of the Solution:	The Town will ensure that they have identified shelters during severe storm events and that they post on their website, as well as hang flyers and distribute power outage guides.	
Estimated Cost:	Staff Time	
Potential Funding Sources:	Town Budget	
Implementation Timeline:	Within 5 Years	
Goals Met:	1, 2, 4, 6, 7	
Benefits:	The Town will have shelters identified for residents to be able to access in the event of emergency events that lead to power outages.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations may be disproportionately affected by power outages and may require sheltering sooner than others due to medical equipment and sensitivities to extreme temperature.	
Impact on Future Development:	Some future development may act as a potential sheltering facility if they have a generator.	
Impact on Critical Facilities/Lifelines:	Some critical facilities may be able to operate as a temporary heating and cooling shelter depending on the size and of the facility and the size of the generator.	
Impact on Capabilities:	The Town will have shelters identified for residents to be able to access in the event of emergency events that lead to power outages.	
Climate Change Considerations:	Climate change is leading to increased power outages due to the intense storms being produced.	
Mitigation Category	Education and Awareness Program	
CRS Category	Public Information, Emergency Services	
Priority	High	
Alternative	Action	Evaluation
	No action	-
	Rely on County	The country has numerous municipalities to serve
	Rely on Federal entities	The federal entities may not be as timely.



Table U. Summary of Prioritization of Actions

Project Number	Project Name	Scores for Evaluation Criteria														High / Medium / Low	
		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
Action 2025-LorraineT-01.	Culvert Upsizing	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
Action 2025-LorraineT-02.	Water Shortage	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
Action 2025-LorraineT-03.	Emergency Sheltering Plan	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High

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