



12. TOWN OF EAST OTTO

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

12.1 HAZARD MITIGATION PLANNING TEAM

The Town of East Otto identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments. The Town Supervisor represented the community on the Cattaraugus County HMP Planning Partnership and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Table 12-1 summarizes Town officials who participated in the development of the annex and in what capacity. Additional documentation of the Town’s planning activities through Planning Partnership meetings is included in Volume I.

Table 12-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Ann Rugg, Supervisor Address: PO Box 47, East Otto, NY 14729 Phone Number: (716) 923-3690 Email: eottosupervisor@gmail.com	Name/Title: Thomas Benz, Highway Superintendent Address: PO Box 47, East Otto, NY 14729 Phone Number: (716) 560-5285 Email: eastottohwy@gmail.com
National Flood Insurance Program Floodplain Administrator	
Name/Title: Jeff Holmes, Code Enforcement Officer Address: PO Box 47, East Otto, NY 14729 Phone Number: (716) 307-3069 Email: eastottoceo@gmail.com	

12.2 COMMUNITY PROFILE

The Town of East Otto lies in the northeast part of Cattaraugus County in western New York State. The Town of East Otto has a total area of 41.6 square miles. The town shares its northern border with Erie County and is bordered on the east by the Town of Ashford. The Town of Ellicottville borders East Otto to the southeast, while the Town of Mansfield borders the town to the south. The Town of Otto borders the Town of East Otto to the west. There are five hamlets located within the town: Brooklyn, East Otto, Edies Siding, Plato, and Whiteford Hollow. Rainbow Lake and Timber Lake are the two largest bodies of water within the town, and East Otto Creek, Goodell Creek, Utley Brook, and South Branch Cattaraugus Creek flow through the town.

Research has shown that some populations are at greater risk from hazard events because of decreased resources or physical abilities. These populations can be more susceptible to hazard events based on a number of factors



including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Data from the 2022 5-Year American Community Survey indicates that 4.7 percent of the population is 5 years of age or younger, 14.6 percent is 65 years of age or older, 0.9 percent is non-English speaking, 10.2 percent is below the poverty threshold, and 14.9 percent is considered disabled.

12.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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

12.3.1 Planning and Regulatory Capability and Integration

Table 12-2 summarizes the planning and regulatory tools that are available to East Otto.

Table 12-2. Planning and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
CODES, ORDINANCES, & REGULATIONS				
Building Code	Yes	Local Law 1, 2007: NYS Uniform Fire Prevention and Building Code	State and Local	Code Enforcement Officer

How has or will this be integrated with the HMP and how does this reduce risk?
This local law provides for the administration and enforcement of the New York State Uniform Fire Prevention and Building Code (the Uniform Code) and the State Energy Conservation Construction Code (the Energy Code) in this town. This local law is adopted pursuant to section 10 of the Municipal Home Rule Law. Except as otherwise provided in the Uniform Code, other state law, or other section of this local law, all buildings, structures, and premises, regardless of use or occupancy, are subject to the provisions this local law.



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Zoning/Land Use Code	Yes	Zoning Ordinance 1992	Local	Code Enforcement Officer
<p>For the purpose of promoting the public health, safety, morals, comfort and general welfare; conserving and protecting property and property values; securing the most appropriate use of land; lessening or avoiding flood losses in areas subject to periodic inundation; and facilitating adequate, but economical provision of public improvements, all in accordance with a comprehensive plan, the Town Board finds it necessary and advisable to regulate the location, size and use of buildings and other structures; percentages of lot area which may be occupied; setback building lines; sizes of yards, courts, and other open spaces; and the use of land for trace, industry, residences, recreation or other purposes, and for such purpose divides the unincorporated area of the Town into districts or zones.</p>				
Subdivision Code	Yes	Town of East Otto Subdivision Regulations, Including Design Standards	Local	Planning Board
<p>How has or will this be integrated with the HMP and how does this reduce risk? The purpose of the Town of East Otto Subdivision Regulations, Including Design Standards is to protect and provide for the public health, safety and general welfare of the town, to guide public and private policy, and to provide the most beneficial relationship between the uses of land and buildings.</p>				
Site Plan Code	Yes	Zoning Ordinance 1992, Section 12.3	Local	Planning Board
<p>How has or will this be integrated with the HMP and how does this reduce risk? Prior to the issuance of a building or special use permit, the applicant shall submit to the planning board a site plan, prepared in accordance with the provisions of this section. Such site plan review shall be required for all special uses and permitted uses as described in section 7.2 of this ordinance, as amended, agriculture, plant cultivation, forestry, single-family residences, two-family residences, fences and accessory uses to the above listed items.</p>				
Stormwater Management Code	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p>				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p>				
Real Estate Disclosure Requirements	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent
<p>How has or will this be integrated with the HMP and how does this reduce risk? 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.</p>				
Growth Management	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p>				
Environmental Protection Ordinance(s)	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Flood Damage Prevention Ordinance	Yes	Local Law 1, 1988: Flood Damage Prevention	Federal, State, County and Local	Floodplain Administrator
<p>How has or will this be integrated with the HMP and how does this reduce risk? Promotes public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas.</p> <p>A. 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. B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction. C. Control the alteration of natural floodplains, stream channels and natural protective barriers which are involved in the accommodation of floodwaters. D. Control filling, grading, dredging and other development which may increase erosion or flood damages. E. Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands. F. Qualify for and maintain participation in the National Flood Insurance Program.</p>				
Wellhead Protection	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Emergency Management Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Climate Change Ordinance	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Other	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
PLANNING DOCUMENTS				
General/Comprehensive Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Capital Improvement Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Floodplain Management or Watershed Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Stormwater Management Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Open Space Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Urban Water Management Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Habitat Conservation Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Economic Development Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Community Wildfire Protection Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Community Forest Management Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Transportation Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Agriculture Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Climate Action/ Resilience/Sustainability Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Tourism Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Business/ Downtown Development Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Other How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
RESPONSE/RECOVERY PLANNING				
Comprehensive Emergency Management Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
Continuity of Operations Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Substantial Damage Response Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Threat and Hazard Identification and Risk Assessment How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Post-Disaster Recovery Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Public Health Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Other How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-

12.3.2 Development and Permitting Capability

Table 12-3 summarizes the capabilities of East Otto to oversee and track development.

Table 12-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> If you issue development permits, what department is responsible? If you do not issue development permits, what is your process for tracking new development? 	Yes	Code Enforcement
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain
Do you have a buildable land inventory? <ul style="list-style-type: none"> If you have a buildable land inventory, please describe 	No	-
Describe the level of buildout in your jurisdiction.	N/A	Town has area which could be used for future development.



12.3.3 Administrative and Technical Capability

Table 12-4 summarizes potential staff and personnel resources available to East Otto and their current responsibilities that contribute to hazard mitigation.

Table 12-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	Planning Board is responsible to initiate, investigate and make reports on planning and development matters; prepare a comprehensive master plan for adoption by the Town Board after a public hearing hear and decide all matters referred to it, or upon which it is required to pass under this ordinance; approve subdivision plats; review and approve, approve with modifications or disapprove site plans; review and approve, approve with modifications or disapprove special use permits; ensure that all actions comply with the provisions of the State Environmental Quality Review Act under article eight of the Environmental Conservation Law and its implementing regulations as codified in 6 NYCRR 617.
Zoning Board of Adjustment	Yes	Zoning Board is responsible to hear and determine appeals from and review any order, requirement, decisions or determination made by the Administration Official or Board; hear and decide all matters referred to it, or upon; hear and pass upon applications for Area or Use Variances ensure that all actions comply with the provisions of the state environmental quality review act under article eight of the environmental conservation law and its implementing regulations as codified in 6 NYCRR 617.
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	Highway Superintendent
Construction/Building/Code Enforcement Department	Yes	Code Enforcement Officer
Emergency Management/Public Safety Department	Yes	Fire Department
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	No	-
Mutual aid agreements	Yes	Emergency response MUAs
Human Resources Manual - Do any job descriptions specifically include identifying	No	-



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
or implementing mitigation projects or other efforts to reduce natural hazard risk?		
Other	No	-
TECHNICAL/STAFFING CAPABILITY		
Planners or engineers with knowledge of land development and land management practices	No	-
Engineers or professionals trained in building or infrastructure construction practices	No	-
Planners or engineers with an understanding of natural hazards	No	-
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazus applications	No	-
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	No	-
Grant writers	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

12.3.4 Fiscal Capability

Table 12-5 summarizes financial resources available to East Otto.

Table 12-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	No
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
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



Financial Resources	Accessible or Eligible to Use? (Yes/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 or state funding programs	Yes
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

12.3.5 Education and Outreach Capability

Table 12-6 summarizes the education and outreach resources available to East Otto.

Table 12-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Cattaraugus County Sheriff's Office
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	No	-
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	No	-
Natural disaster/safety programs in place for schools	No	-
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Town website and social media

12.3.6 Community Classifications

Table 12-7 summarizes classifications for community programs available to East Otto.

Table 12-7. Community Classifications

Program	Participating? (Yes/No)	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	5	4/2019
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	9	4/2019
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
New York State Climate Smart Communities	No	-	-



Program	Participating? (Yes/No)	Classification	Date Classified
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

N/A = Not applicable
 — = Unavailable

12.3.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 12-8 summarizes the adaptive capacity for each identified hazard of concern and the Town’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement

Table 12-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam and Levee Failure	Moderate
Flood	Moderate
Landslide	Moderate
Pandemic	Moderate
Severe Storm	Moderate
Severe Winter Storm	Moderate
Utility Interruption	Moderate
Wildfire	Moderate

12.4 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 12-1 is responsible for maintaining this information.

12.4.1 NFIP Statistics

Table 12-9 summarizes the NFIP policy and claim statistics for East Otto.

Table 12-9. East Otto NFIP Summary of Policy and Claim Statistics

# Policies	3
# Claims (Losses)	24
Total Loss Payments	\$305,034.38



# Repetitive Loss Properties (NFIP definition)	4
# Repetitive Loss Properties (FMA definition)	1
# Severe Repetitive Loss Properties	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

12.4.2 Flood Vulnerability Summary

Table 12-10 provides a summary of the NFIP program in East Otto.

Table 12-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Zoar Valley, Swamp Rd., Low lying areas in the Hamlet
Do you maintain a list of properties that have been damaged by flooding?	Yes
Do you maintain a list of property owners interested in flood mitigation?	Yes
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	1 currently
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	FEMA regulations
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	One that was demolished by the owner
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	One that was demolished by the owner
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Will adequately address after FEMA approves an updated version
NFIP Compliance	
What local department is responsible for floodplain management?	Code Enforcement



NFIP Topic	Comments
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes, County GIS
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	More localized (or on site) training to Cattaraugus County so training is more feasible to do with limited staffing.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Permit Review
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	FEMA regulations
What are the barriers to running an effective NFIP program in the community, if any?	Limited staffing and financial resources
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	CAC: January 27, 2011 CAV: October 16, 2023
What is the local law number or municipal code of your flood damage prevention ordinance?	Local Law 1, 1988: Flood Damage Prevention
What is the date that your flood damage prevention ordinance was last amended?	1988
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets minimum requirements
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?	The Town evaluates flood risk
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

12.5 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 12-11 through Table 12-13.

Table 12-11. 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	3	0	0	3



	New Construction Permits Issued			
	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
Permits within SFHA	0	0	0	0
2020				
Total Permits	7	0	0	7
Permits within SFHA	0	0	0	0
2021				
Total Permits	5	0	0	5
Permits within SFHA	0	0	0	0
2022				
Total Permits	6	0	0	6
Permits within SFHA	0	0	0	0
2023				
Total Permits	5	0	0	5
Permits within SFHA	0	0	0	0
2024				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0

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

Table 12-12. 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
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The Town did not indicate any recent major development or infrastructure occurred between 2019 to present.

* Only location-specific hazard zones or vulnerabilities identified.

Table 12-13. 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
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The Town did not indicate any known or anticipated major development or infrastructure in the next five years.

12.6 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 East Otto’s risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

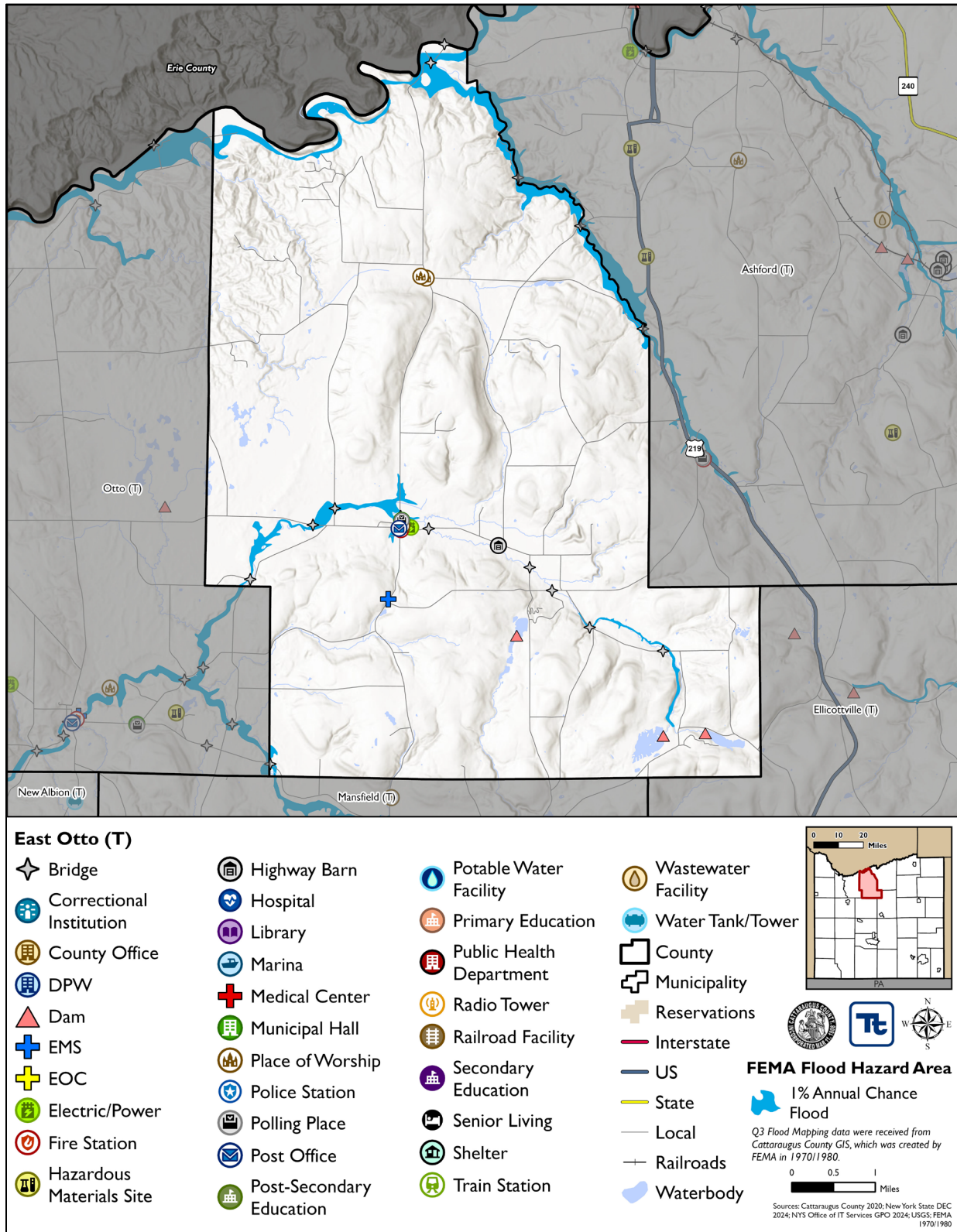


12.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Town are shown in Figure 12-1 through Figure 12-2. 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 East Otto has significant exposure. The maps show the location of potential new development, where available.



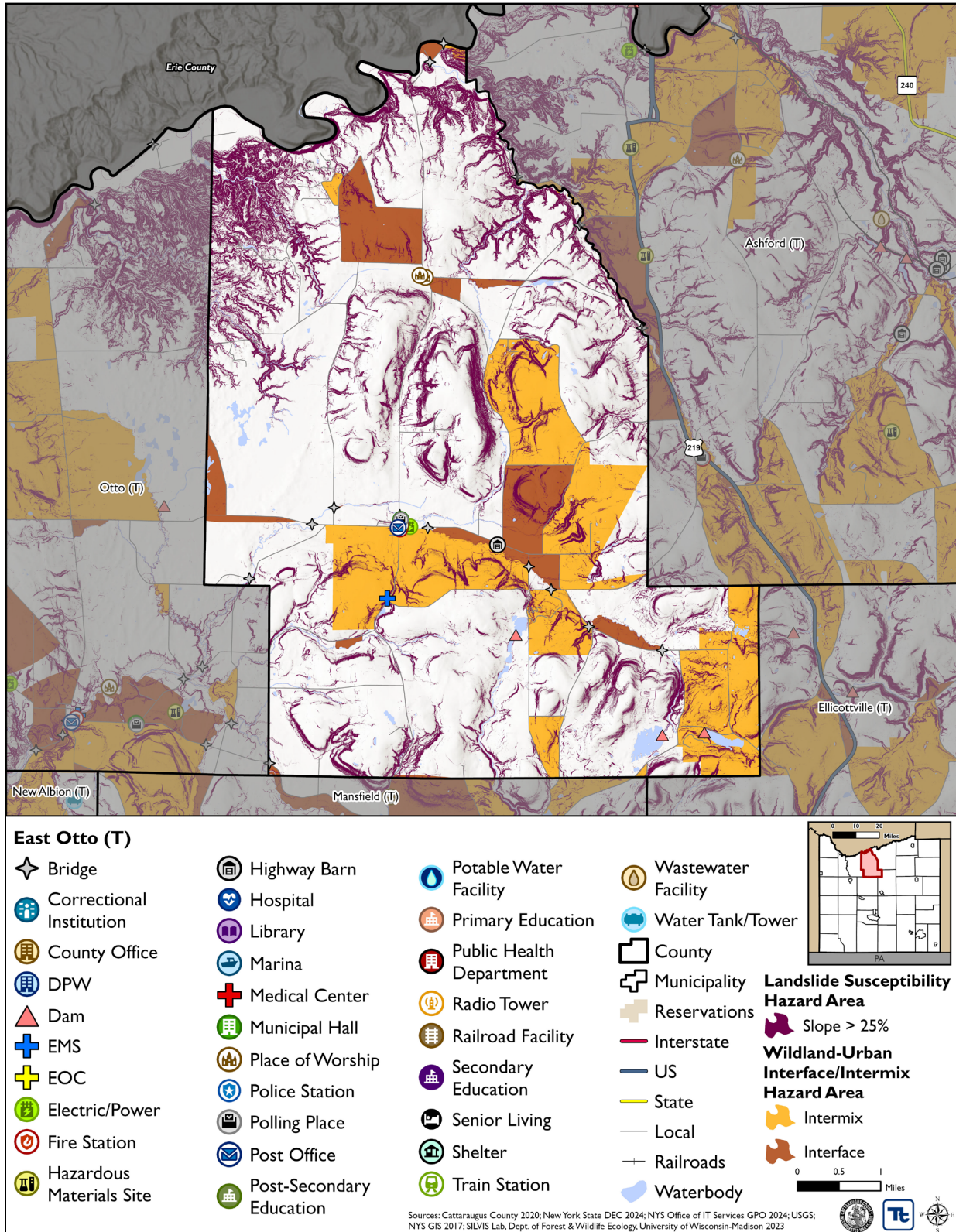
Figure 12-1. East Otto Flood Hazard Area Extent and Location Map



Note: The shown flood hazard area is limited to the FEMA-defined flood hazard areas. Areas of localized flooding are not reflected in the above Figure.



Figure 12-2. East Otto Landslide and Wildfire Hazard Area Extent and Location Map





12.6.2 Hazard Event History

The history of natural and non-natural hazard events in East Otto is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 12-14 provides details on loss and damage in East Otto during hazard events since the last hazard mitigation plan update.

Table 12-14. Hazard Event History in East Otto

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in East Otto
October 31-November 1, 2019	DR-4472	No	Severe Storms, Straight-Line Winds, and Flooding	The Town did not incur any documented damage or losses.
March 13, 2020	EM-3434 DR-4480	Yes	COVID-19 Pandemic	Adhered to mandates
January 12, 2020	High Wind	N/A	High wind	The Town did not incur any documented damage or losses.
July 16, 2020	Thunderstorm Wind	N/A	Trees and wires were reported down in Gowanda.	The Town did not incur any documented damage or losses.
July 19, 2020	Thunderstorm Wind	N/A	Multiple reports of trees down around Gowanda, Ashville Bay, Napoli and Portville.	The Town did not incur any documented damage or losses.
August 15, 2020	Flash Flood	N/A	Marble Road and Potter Road in Lime Lake were reported to be washed out by law enforcement.	The Town did not incur any documented damage or losses.
September 7, 2020	Thunderstorm Wind	N/A	Property damage in Olean.	The Town did not incur any documented damage or losses.
November 15, 2020	High Wind	N/A	Property damage throughout Cattaraugus County.	The Town did not incur any documented damage or losses.
July 13, 2021	Thunderstorm Wind	N/A	Several reports were received of trees down, trees on cars, trees on houses, and powerlines down in Salamanca, Olean, and Allegany.	The Town did not incur any documented damage or losses.
December 11, 2021	High Wind	N/A	Dozens of reports of trees and powerlines down were received.	The Town did not incur any documented damage or losses.
March 6, 2022	High Wind	N/A	High wind	The Town did not incur any documented damage or losses.
July 24, 2022	Thunderstorm Wind	N/A	Trees and powerlines reported down in East Otto, Randolph, and South Dayton.	Trees and powerlines downed
November 20, 2022	EM-3589	Yes	Severe Winter Storm and Snowstorm	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

12.6.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner’s vulnerability to the identified hazards. The following presents key risk assessment results for East Otto .

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. East Otto reviewed the County hazard ranking and individual results to assess the relative risk of the hazards of concern to the community. During the review of the hazard ranking, the Town agreed with the preliminary rankings.

Table 12-15 shows East Otto’s final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 12-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	Medium
Flood	Medium
Landslide	High
Pandemic	Medium
Severe Storm	High
Severe Winter Storm	High
Utility Failure	Medium
Wildfire	Medium

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction

Critical Facilities

Table 12-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 12-16. Critical Facilities Flood Vulnerability

Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
EAST OTTO 12	Bridge	X	-	2025-EastOttoT-15	-



Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
East Otto 26	Bridge	X	-	2025-EastOttoT-15	-
East Otto 27	Bridge	X	-	2025-EastOttoT-15	-
East Otto 29	Bridge	X	-	2025-EastOttoT-15	-
East Otto 30	Bridge	X	-	2025-EastOttoT-15	-

Source: Cattaraugus County 2024

12.6.4 Identified Issues

After a review of East Otto’s hazard event history, hazard rankings, hazard location, and current capabilities, East Otto identified the following vulnerabilities within the community:

- Floodplain managers require training. Those responsible for floodplain management are lacking in their knowledge of required duties. Training is sorely needed for all municipal officials and for code enforcement officials in charge of municipalities. Very little zoning precludes homeowners from building in floodplains, leading to problems later.
- The current flood damage prevention ordinance does not include the 2-foot mandated NYS freeboard requirements. While the existing ordinance may be compliant with NFIP requirements, State requirements which exceed NFIP requirements must be adhered to.
- Landslide events are often driven by hazards such as heavy rain events, flooding, heavy snowmelt, and wildfires. Landslides can destroy the natural and built environments, causing detriment to the structures in its path. Landslides may be able to be mitigated by cutting banks to prevent erosion. There are several locations in Town exposed to the landslide hazard:
 - Connoisarauley Road
 - Hammond Hill Road
 - Zoar Valley area experiences significant slides
 - Snake Run Road
 - Steep banks are vulnerable, especially during flash flooding
 - Crumb Hill Road
 - Edge of ravine
 - Traffic Street
- Following emergency events, individuals may be unable to stay in their places of residence due to storm damages. Flooding from dam and levee failures can cause residences to become uninhabitable; wildfires and landslides can compromise the integrity of the structure; and severe storms and severe winter storms can lead to utility failures. The Town needs to identify locations for the placement of temporary sheltering.
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Town has four repetitive loss properties, but other properties may be impacted by flooding as well.
- Flood prone roads not only interrupt the movement of persons and goods but can lead to isolation issues where first responders are unable to reach their destination and cause evacuation routes to be inaccessible. Flooded road ways may be caused by debris in culverts from severe storms and severe winter storms.



There are multiple roads in Town which may benefit from flood mitigation strategies, such as the elevation of the roadways or the hardening of the infrastructure surrounding them to reduce likelihood of flooding including:

- Hammond Hill Road
 - Utley Road
 - Swamp Road
 - Harvey Road
 - Traffic Street
 - Maynard Road
 - Mason Road
 - County Road 12
- Undersized culverts often result in the flooding of roadways due to the inability to handle the influx of water. Debris build-up in these undersized pipes may also result in water back-flow, leading to further roadway flooding instances and impacting the integrity of the culverts. Several culverts in the Town are undersized or have been damaged from instances of flooding and the debris caused by severe storms and severe winter winters including culverts located on the following roads:
 - Traffic Street
 - Maynard Road
 - The Town has dams within its jurisdiction. Despite not being identified as high-hazard potential dams, these structures have the potential to impact the people, property, infrastructure, and environment nearby.
 - The Town faces risk from wildfires but does not have a comprehensive education and outreach program to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods. The Town does not currently have hazard mitigation information and outreach on the Town website.
 - Critical facilities require backup power to ensure continuity of operations. The Town Hall, a designated emergency shelter, does not have back up power, which could impact the continuity of operations at the facilities in the event of a utility or power failure. High winds associated with severe storms and severe winter storms are known to cause utility failures, which would impact the continuity of operations at both critical facilities. Rising water levels from floods could impact these facilities; back-up generators would permit any influx of water to be removed from the facilities via pumping systems.
 - In the Zoar Valley, the Connoisarauley Creek and Cattaraugus Creek have stream bank erosion issues, threatening encroachment onto nearby roads. Stream banks become eroded due to heavy rains from severe storms, degradation from flood waters and compacted snow and ice from severe winter storms. Stabilization measures, such as including gabions, riprap, drainpipes and/or related improvements, should be considered to prevent flooding and potential landslide issues.
 - Open air storage of salt and sand leads to loss of materials from erosion and leaching. These materials exposed to heavy rains, snowfalls, and flooding conditions negatively impacts the environment and disrupts natural ecosystems. The loss of materials can result in the reduction in effectiveness of mitigating impacts from severe winter storms, as salt and sand is utilized to minimize potential risks on roadways, including ice and snow.
 - The Town has an outdated Comprehensive Emergency Management Plan (CEMP). Hazard mitigation principles need to be integrated into the CEMP. A CEMP establishes the overall authority, roles, and



functions performed during incidents. Incorporating hazard mitigation principles into a CEMP ensures hazard risk is identified.

- The Town faces risk from pandemic but does not have a comprehensive education and outreach program to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods. The Town does not currently have hazard mitigation information and outreach on the Town website.
- Scour on bridges can develop due to erosion. Erosion may occur due to waters impacting the bridge's structure during severe winter storms and severe storms when the precipitation causes the water movements to be more erratic. Rising waters may cause flooding conditions to further erode the structure of the bridge. The following bridges in the jurisdiction should be evaluated to determine useability and to identify potential solutions, as necessary:
 - East Otto 26
 - East Otto 27
 - East Otto 29
 - East Otto 30
- Federal accreditation of floodwater retention structures shows the dams and levees have met and continue to meet the minimum regulatory standards set by the regulatory agencies. The accreditation of these structures show they are able to support efforts in the mitigation of flood risk.

12.7 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.

12.7.1 Past Mitigation Action Status

Table 12-17 indicates progress on the Town's mitigation strategy identified in the 2020 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.

12.7.2 Additional Mitigation Efforts

East Otto did not identify any additional mitigation efforts completed since the last HMP.



Table 12-17. Status of Previous Mitigation Actions

Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-East Otto-001	Flood Damage Prevention Ordinance	Flood	FPA	<p>Problem: The Town of East Otto's flood damage prevention ordinance is outdated.</p> <p>Solution: The town will adopt an updated flood damage prevention ordinance to maintain NFIP compliance.</p>	1. No Progress 2. Town prioritized other projects	1. Include 2. Not applicable 3. Not applicable
2020-East Otto-002	FPA and Code Enforcement Training	All Hazards	Administration	<p>Problem: Floodplain administration and code enforcement staff require additional training.</p> <p>Solution: The Code Enforcement staff, Town FPA, and staff who assist with floodplain administration will attend trainings and workshops offered by FEMA and NYS to develop additional floodplain administration and hazard mitigation skills.</p>	1. No Progress 2. Lack of available training	1. Include 2. Not applicable 3. Not applicable
2020-East Otto-003	Landslide Studies	Landslide	Administration, Engineer	<p>Problem: Numerous locations are exposed to landslide:</p> <ul style="list-style-type: none"> • Connoisarauley • Hammond Hill • Zoar Valley area experiences significant slides • Snake Run • Steep banks are vulnerable, especially during flash flooding • Crumb Hill 	1. No Progress 2. Financial constraints	1. Include 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<ul style="list-style-type: none"> • Edge of ravine • Traffic Street <p>Solution: The town will conduct landslide studies to determine landslide risk and potential mitigation actions. The town will carry out the identified actions that are cost-effective.</p>		
2020-East Otto-004	Identification of Permanent Housing Locations	All Hazards	Administration	<p>Problem: The Town of East Otto needs to identify locations for the placement of permanent housing.</p> <p>Solution: The Town of East Otto will work with Cattaraugus County to identify regional locations for permanent housing.</p>	<ol style="list-style-type: none"> 1. No Progress 2. Town prioritized other projects 	<ol style="list-style-type: none"> 1. Include 2. Not applicable 3. Not applicable
2020-East Otto-005	Repetitive Flood Mitigation	Flood, Severe Storm	FPA, supported by homeowners	<p>Problem: Ongoing flood concerns exist in numerous areas of the Town of East Otto. The town currently has 8 repetitive loss properties. Several areas with repetitive flooding that are frequently cause for concern include:</p> <ul style="list-style-type: none"> • Hammond Hill (Zoar Valley) • Utley Road • Swamp Road (ball diamond to Jeff's) • Harvey Road (beaver dam, end by Traffic Street) • Additional permitting work would be necessary and cooperation of private property owner. 	<ol style="list-style-type: none"> 1. No Progress 2. Town prioritized other projects 	<ol style="list-style-type: none"> 1. Include 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				<ul style="list-style-type: none"> • Traffic Street (big culvert) • Maynard Road (Mugler) <ul style="list-style-type: none"> • 4- or 5-foot culvert may be undersized. • Mason (bottom of hill) • County Road 12 (by Greens) • Dam failure <ul style="list-style-type: none"> • Scoby Dam: <ul style="list-style-type: none"> ▪ Could lead to a rapid rise in Hammond Hill/Zoar Valley Area ▪ There has been discussion regarding the removal of this dam • Timberlake Dike • Rainbow Lake Dike <p>Solution: Conduct outreach to 30 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).</p>		



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-East Otto-006	Backup Power for Critical Facilities	Utility Failure	Engineer, OEM, Highway	<p>Problem: The following critical facilities require backup power:</p> <ul style="list-style-type: none"> Highway Department Highway Department's fuel pumps Town Hall <p>Solution: The Town Engineer will research what size generator is necessary to supply backup power to each facility. The town will then install a backup power generator and necessary electrical components at each facility.</p>	1. No Progress 2. Financial constraints	1. Include 2. Not applicable 3. Not applicable
2020-East Otto-007	Explosion and Wildfire Outreach	Wildfire	OEM	<p>Problem: Potential explosion risk exists in the town which could also ignite wildfire: Multiple household propane tanks, several crop drying facilities, propane tanks, gas wells, multiple gas wells and pipelines.</p> <p>Solution: The town will conduct outreach on the dangers of explosive materials and wildfire risk.</p>	1. No Progress 2. Town prioritized other projects	1. Include 2. Not applicable 3. Not applicable
2020-East Otto-008	Zoar Valley Stream Stabilization	Flood, Landslide	Administration	<p>Problem: Stream stabilization is needed in the Zoar Valley to prevent landslides and flood issues.</p> <p>Solution: The town will conduct the necessary stabilization measures.</p>	1. No Progress 2. Financial constraints	1. Include 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-East Otto-009	Town Hall Upgrades to Support Sheltering	All Hazards	Administration	<p>Problem: The Town Hall is a designated emergency shelter. The building requires update to ensure it is capable of providing critical services. Necessary updates include:</p> <ul style="list-style-type: none"> • Upgraded water • Upgraded septic • Backup power <p>Solution: The town will complete the necessary upgrades to allow for support of sheltering.</p>	1. No Progress 2. Financial constraints	1. Include 2. Not applicable 3. Not applicable
2020-East Otto-010	Salt and Sand Barn	Severe Storm, Severe Winter Storm	Highway	<p>Problem: The Town of East Otto requires a sand/salt structure to protect the salt and sand supplies from exposure to precipitation and runoff into the locally protected stream. The stream is used by the NYS DEC hatchery. Relocation across the street is not currently feasible due to private property ownerships.</p> <p>Solution: The town will construct a salt sand barn with a structurally sound and weather-proof structure to protect the town salt and sand supply for winter storm response. The Highway Department will be responsible for construction.</p>	1. No Progress 2. Financial constraints	1. Include 2. Not applicable 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-East Otto-011	Emergency Operations Plan Update	All Hazards	OEM	<p>Problem: The Emergency Operations Plan requires update.</p> <p>Solution: The town will update the Emergency Operations Plan, using information collected during the hazard mitigation plan update.</p>	<ol style="list-style-type: none">1. No Progress2. Town prioritized other projects	<ol style="list-style-type: none">1. Include2. Not applicable3. Not applicable



12.7.3 Proposed Hazard Mitigation Actions for the HMP Update

East Otto participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 “Selecting Appropriate Mitigation Measures for Floodprone Structures” (March 2007)
- FEMA “Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards” (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that East Otto would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Town priorities.

Table 12-18 indicates the range of proposed mitigation action categories. The four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide range of activities and mitigation measures selected.

Volume I identifies 14 evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned (-1, 0, or 1) for each of the evaluation criteria. Table 12-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 12-18. Analysis of Mitigation Actions by Hazard and Category

Hazard	Actions That Address the Hazard, by Action Category									
	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam and Levee Failure	X				X					X
Flood	X	X		X	X		X		X	X
Landslide	X	X			X					X
Pandemic	X			X			X			X
Severe Storm	X	X			X				X	X
Severe Winter Storm	X	X			X				X	X
Utility Failure	X	X							X	X
Wildfire	X	X		X	X		X			X

Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.

Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.

Natural Systems Protection (NSP)—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.

Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.

Natural Resource Protection (NR)—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.

Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 12-19. 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
2025-EastOttoT-01	Floodplain Management Training	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-EastOttoT-02	Flood Damage Prevention Ordinance Update	1	1	1	1	1	1	1	1	1	1	1	1	0	0	12	High
2025-EastOttoT-03	Landslide Mitigation	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-EastOttoT-04	Temporary Sheltering	1	0	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-EastOttoT-05	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	0	1	1	0	1	11	High
2025-EastOttoT-06	Floodprone Roads	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-EastOttoT-07	Undersized Culverts	1	1	1	1	1	0	1	0	1	1	1	1	1	0	11	High
2025-EastOttoT-08	Dam Owner Partnership	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-EastOttoT-09	Wildfire Education and Outreach	1	1	1	1	1	1	0	1	1	0	1	1	0	1	11	High
2025-EastOttoT-10	Generators at Critical Facilities	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2025-EastOttoT-11	Streambank Erosion	1	1	1	1	0	0	1	1	1	1	1	1	0	1	11	High
2025-EastOttoT-12	Salt and Sand Storage Shed	0	0	1	1	1	0	1	1	1	1	1	1	1	0	10	Medium
2025-EastOttoT-13	Comprehensive Emergency Management Plan Update	1	1	1	1	1	1	0	1	1	1	0	1	1	0	11	High
2025-EastOttoT-14	Pandemic Education and Outreach	1	1	1	1	1	1	0	1	1	0	1	1	0	1	11	High
2025-EastOttoT-15	Bridge Evaluations	1	1	1	1	0	0	1	1	1	1	1	1	1	0	11	High



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
2025-EastOttoT-16	Federal Accreditation Standards	1	1	1	1	0	0	0	1	1	1	1	1	1	1	11	High

Note: Volume I, Section 16 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-6), Medium (7-10), High (11-14).



Action 2025-EastOttoT-01. Floodplain Management Training

Lead Agency:	Code Enforcement		
Supporting Agencies:	Town Board		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	Floodplain managers require training. Those responsible for floodplain management are lacking in their knowledge of required duties. Training is sorely needed for all municipal officials and for code enforcement officials in charge of municipalities. Very little zoning precludes homeowners from building in floodplains, leading to problems later.		
Description of the Solution:	Where feasible, the Town will have Code staff attend trainings at FEMA's EMI in Emmitsburg Maryland for NFIP Basics and the Intermediate Floodplain management course (E0273). Where not feasible, officials will attend virtual trainings and review available resources from FEMA and ASFPM at the ASFPM (https://www.floods.org/) website. Encourage staff to become Certified Floodplain Managers via the Association of State Floodplain Manager's CFM Certification Program.		
Estimated Cost:	Low		
Potential Funding Sources:	Town Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 3, 4		
Benefits:	Providing an opportunity for 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 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 trainings 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	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem exists
	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-EastOttoT-02. Flood Damage Prevention Ordinance Update

Lead Agency:	Code Enforcement		
Supporting Agencies:	Town Board		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	The current flood damage prevention ordinance does not include the 2-foot mandated NYS freeboard requirements. While the existing ordinance may be compliant with NFIP requirements, State requirements which exceed NFIP requirements must be adhered to.		
Description of the Solution:	The Town will work with Cattaraugus County and NYSDEC to ensure its Flood Damage Prevention Ordinance is updated to adhere to NYS requirements. After obtaining the appropriate review and concurrence by the NFIP State Coordinator and the FEMA Regional Office, the Town will update and adopt the Flood Damage Prevention Ordinance.		
Estimated Cost:	Low		
Potential Funding Sources:	Town Budget		
Implementation Timeline:	Within 3 years		
Goals Met:	1, 2, 4		
Benefits:	The updated ordinance will improve floodplain management, meet NFIP and State requirements, and increase resilience of new and substantially improved structures in the floodplain.		
Impact on Socially Vulnerable Populations:	The action will result in better regulation of construction standards within the Special Flood Hazard Area where significant risk to socially vulnerable populations exists.		
Impact on Future Development:	The action will result in stronger regulation of construction standards for future development in the Special Flood Hazard Area.		
Impact on Critical Facilities/Lifelines:	Critical facilities and lifelines located in the Special Flood Hazard Area will be required to meet the requirements set forth in the ordinance.		
Impact on Capabilities:	This action will improve floodplain management capabilities through better outlining of responsibilities and administrative procedures.		
Climate Change Considerations:	The updated ordinance includes the State's higher standards that are in place to address heightened flood risk due to climate change such as those for floodway rise and mandatory freeboard.		
Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem exists
	Update only freeboard requirements		Other areas of the ordinance which need to be updated would not be
	Leave NFIP		Residents lose flood insurance coverage



Action 2025-EastOttoT-03. Landslide Mitigation

Lead Agency:	Highway Department		
Supporting Agencies:	Engineering		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input checked="" type="checkbox"/> Wildfire	
Description of the Problem:	<p>Landslide events are often driven by hazards such as heavy rain events, flooding, heavy snowmelt, and wildfires. Landslides can destroy the natural and built environments, causing detriment to the structures in its path. Landslides may be able to be mitigated by cutting banks to prevent erosion. There are several locations in Town exposed to the landslide hazard:</p> <ul style="list-style-type: none"> • Connoisarauley Road • Hammond Hill Road <ul style="list-style-type: none"> • Zoar Valley area experiences significant slides • Snake Run Road <ul style="list-style-type: none"> • Steep banks are vulnerable, especially during flash flooding • Crumb Hill Road <ul style="list-style-type: none"> • Edge of ravine • Traffic Street 		
Description of the Solution:	<p>The Town Engineer will complete an assessment to identify an appropriate, cost-effective method to mitigation landslide risk. Possible mitigation measures include:</p> <ul style="list-style-type: none"> • Construction of retaining walls, soil nailing, ground anchor walls • Install horizontal drains to reduce soil saturation • Cut banks along water ways to prevent oversaturated soils from falling • Install netting 		
Estimated Cost:	TBD after mitigation technique is chosen		
Potential Funding Sources:	FEMA HMA, Town Budget, CHIPS		
Implementation Timeline:	Within 5 years		
Goals Met:	1		
Benefits:	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.		
Impact on Socially Vulnerable Populations:	This action will assist socially vulnerable populations whose properties are impacted by landslide near the Allegany River. Keeping the roadway open to traffic also permits vulnerable populations to travel to critical appointments.		
Impact on Future Development:	Future development in the impacted area will be less likely to be impacted by landslides.		
Impact on Critical Facilities/Lifelines:	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.		
Impact on Capabilities:	This action improves the Town's reliability in terms of transportation.		
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Saturated soils can lead to an increased possibility of landslide occurrences. Conversely, drier summer conditions may fuel wildfires, leading to unstable soils and resulting in landslide occurrences.		
Mitigation Category	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
	Action		Evaluation



Alternatives:	No Action	Current problem exists
	Reconstruct roadway outside of hazard area	Not feasible
	Close road and reroute traffic around hazard area	Not feasible, would cause confusion amongst travelers



Action 2025-EastOttoT-04. Temporary Sheltering

Lead Agency:	Town Supervisor	
Supporting Agencies:	Town Board, Cattaraugus County Office of Emergency Services, Neighboring Jurisdictions, American Red Cross	
Hazard(s) of Concern:	<input checked="" type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Utility Failure <input checked="" type="checkbox"/> Wildfire
Description of the Problem:	Following emergency events, individuals may be unable to stay in their places of residence due to storm damages. Flooding from dam and levee failures can cause residences to become uninhabitable; wildfires and landslides can compromise the integrity of the structure; and severe storms and severe winter storms can lead to utility failures. The Town needs to identify locations for the placement of temporary sheltering.	
Description of the Solution:	The Town Supervisor will lead efforts to identify a suitable location to temporarily relocate residents or visitors in need of temporary sheltering. The Town will consider options to partner with neighboring jurisdictions for a regional location. The Town will contact the Cattaraugus County Office of Emergency Services for assistance as needed to identify a suitable, approved location.	
Estimated Cost:	Medium	
Potential Funding Sources:	Town Budget, County Budget, Neighboring Jurisdictions, American Red Cross, HSGP	
Implementation Timeline:	Within 5 years	
Goals Met:	1, 2, 4, 6	
Benefits:	Providing a safe, climate-controlled location for individuals in need following an emergency can provide a sense of gratitude and normalcy to an otherwise negative event. Removing individuals from at-risk locations and offering a temporary locations for impacted persons to gather, increases the safety of the overall community.	
Impact on Socially Vulnerable Populations:	Socially vulnerable populations are often the most risk during emergencies and disaster events. Offering a safe location for these populations can ensure their health is looked after and they are removed from harm's way.	
Impact on Future Development:	The temporary sheltering facility will be able to support population increases brought in from potential future development.	
Impact on Critical Facilities/Lifelines:	This action would create, or expand on already existing, critical facilities, as sheltering locations are critical facilities.	
Impact on Capabilities:	This action will create a new capability of the Town by offering a resource for its visitors and residents to utilize should they be in need of temporary sheltering.	
Climate Change Considerations:	The changing climate may lead to the Town, its residents, and visitors being exposed to hazards more frequently. Extreme temperatures have occurred more often in recent years which lead to drought; heavier rainfalls during severe storms have increased the occurrence of flooding. A temporary sheltering facility can provide a safe location for impacted individuals.	
Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium <input type="checkbox"/> Low
Alternatives:	Action	Evaluation
	No Action	Current problem exists
	Utilize County facilities	May require signed agreements; reliant on County opening facilities
	Utilize American Red Cross facilities	Reliant on American Red Cross opening a facility



Action 2025-EastOttoT-05. Repetitive Loss Properties

Lead Agency:	Code Enforcement		
Supporting Agencies:	Town Board		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Town has four repetitive loss properties, but other properties may be impacted by flooding as well.		
Description of the Solution:	The Town will conduct outreach to the impacted properties and will provide information on mitigation alternatives. After preferred mitigation measures are identified, the Town will collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating of the affected properties that experience frequent flooding. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.		
Estimated Cost:	Medium		
Potential Funding Sources:	FEMA FMA, FMA SWIFT, Town Budget, County Budget, Property Owners		
Implementation Timeline:	3 years		
Goals Met:	1		
Benefits:	This action would foster comprehensive floodplain management by removing at risk properties from the flood hazard area or elevating properties to reduce the flood risk.		
Impact on Socially Vulnerable Populations:	Collecting data regarding homeowners that reside within flood prone areas provides an opportunity to introduce location-specific opportunities for assistance. 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:	Outreach which promotes the removal of risk from the immediate floodplain via acquisition of properties will free up resources for search and rescue and other emergency operations as needed. This action will enhance the Town's current NFIP capabilities.		
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.		
Mitigation Category	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem exists
	Levee around floodplain		Costly, not enough room.
	Deployable flood barriers		Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.



Action 2025-EastOttoT-06. Floodprone Roads

Lead Agency:	Highway Department					
Supporting Agencies:	Code Enforcement, Engineering, County Public Works					
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire				
Description of the Problem:	<p>Flood prone roads not only interrupt the movement of persons and goods but can lead to isolation issues where first responders are unable to reach their destination and cause evacuation routes to be inaccessible. Flooded road ways may be caused by debris in culverts from severe storms and severe winter storms. There are multiple roads in Town which may benefit from flood mitigation strategies, such as the elevation of the roadways or the hardening of the infrastructure surrounding them to reduce likelihood of flooding including:</p> <ul style="list-style-type: none"> • Hammond Hill Road • Utley Road • Swamp Road • Harvey Road • Traffic Street • Maynard Road • Mason Road • County Road 12 					
Description of the Solution:	<p>The Town will develop specific mitigation solutions for flood-prone road systems after conducting a flood study. Possible solutions may include:</p> <ul style="list-style-type: none"> • Elevation of roadways • Installation or improvement of drainage systems • Regrading of roadway and soils • Resurfacing or reshaping roadways 					
Estimated Cost:	TBD after mitigation technique is chosen					
Potential Funding Sources:	FEMA HMA, Town Budget, CHIPS					
Implementation Timeline:	Within 5 years					
Goals Met:	1					
Benefits:	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.					
Impact on Socially Vulnerable Populations:	This action will assist socially vulnerable populations whose properties are impacted by flooding along flood-prone roads.					
Impact on Future Development:	Future development in the impacted area will be less likely to be flooded.					
Impact on Critical Facilities/Lifelines:	This action will identify measures to protect infrastructure in the transportation lifeline, which will lead to the assurance of clear roadways for evacuations, regular travel, and emergency responses.					
Impact on Capabilities:	This action improves the Town's reliability in terms of transportation.					
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events.					
Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)				
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)				
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium				
		<input type="checkbox"/> Low				
Alternatives:	<table border="1"> <tr> <th>Action</th> <th>Evaluation</th> </tr> <tr> <td>No Action</td> <td>Current problem exists</td> </tr> </table>	Action	Evaluation	No Action	Current problem exists	
Action	Evaluation					
No Action	Current problem exists					



	Relocate all flood-prone road system	Not feasible
	Raise all flood prone roads	Cost prohibitive



Action 2025-EastOttoT-07. Undersized Culverts

Lead Agency:	Highway Department		
Supporting Agencies:	Code Enforcement, Engineer		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	<p>Undersized culverts often result in the flooding of roadways due to the inability to handle the influx of water. Debris build-up in these undersized pipes may also result in water back-flow, leading to further roadway flooding instances and impacting the integrity of the culverts. Several culverts in the Town are undersized or have been damaged from instances of flooding and the debris caused by severe storms and severe winter winters including culverts located on the following roads:</p> <ul style="list-style-type: none"> • Traffic Street • Maynard Road 		
Description of the Solution:	<p>The Town Engineer will complete an engineering survey of the culverts in Town 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 the culverts.</p>		
Estimated Cost:	TBD after study is complete		
Potential Funding Sources:	FEMA HMA, CHIPS, Town Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 4		
Benefits:	<p>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.</p>		
Impact on Socially Vulnerable Populations:	<p>Areas that were previously vulnerable to frequency or severe flooding events will be less likely to be impacted by flooding events.</p>		
Impact on Future Development:	<p>Future development in the impacted area will be less likely to be flooded.</p>		
Impact on Critical Facilities/Lifelines:	<p>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 requires treatment for injuries and illness.</p>		
Impact on Capabilities:	<p>Identifying the culverts that are at greatest risk of damage or failure can allow for resource staging to take place where the need is greatest ahead of a flood event.</p>		
Climate Change Considerations:	<p>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.</p>		
Mitigation Category	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem exists
	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-EastOttoT-08. Dam Owner Partnership

Lead Agency:	Town Board	
Supporting Agencies:	NYS DEC, Dam Owners	
Hazard(s) of Concern:	<input checked="" type="checkbox"/> Dam and Levee Failure <input type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire
Description of the Problem:	The Town has dams within its jurisdiction. Despite not being high-hazard potential dams, these structures have the potential to impact the people, property, infrastructure, and environment nearby.	
Description of the Solution:	The Town will work with the owners of the dams to ensure inspections and safety procedures are up to date. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Dam Owner will pursue funding support, permit approval from NYS DEC, and implement the cost-effective measures.	
Estimated Cost:	Low	
Potential Funding Sources:	Town Budget	
Implementation Timeline:	Within 5 years	
Goals Met:	1, 2, 3	
Benefits:	This action will improve the safety and security of those who live near the dams and increase the resilience of responding agencies.	
Impact on Socially Vulnerable Populations:	The action will result in better preparedness within for those living near areas where the dams are located.	
Impact on Future Development:	Future development near the dams will be more secure as safety procedures and inspections are regularly performed on the dams.	
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.	
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.	
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.	
Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium
Alternatives:	Action	
	No Action	
	Utilize information from NYS DEC	
	Utilize information from the National Inventory of Dams	
	Evaluation	
	Town will be unaware of any safety concerns for the dam or its condition	
	Owners may not be required to submit a safety plan to the State	
	Not all dams are listed on the inventory	



Action 2025-EastOttoT-09. Wildfire Education and Outreach

Lead Agency:	Town Supervisor		
Supporting Agencies:	Town Board, Cattaraugus County		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input checked="" type="checkbox"/> Wildfire	
Description of the Problem:	The Town faces risk from wildfires but does not have a comprehensive education and outreach program to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods. The Town does not currently have hazard mitigation information and outreach on the Town website.		
Description of the Solution:	Create outreach materials, or utilize those from Cattaraugus County, on wildfire risks and methods of mitigation measures. Methods of distribution may include Town events, the Town newsletters, social media, the Town website, and having the materials on display for the public at Town libraries and offices. Outreach materials will be specified with education and information for the wildfire hazard.		
Estimated Cost:	Low		
Potential Funding Sources:	Town Budget		
Implementation Timeline:	1 year		
Goals Met:	1, 2, 3, 4		
Benefits:	This action will improve the public education and outreach capabilities in the Town by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Town.		
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will learn how to prepare for and mitigate the wildfire hazard which may impact them in the Town.		
Impact on Future Development:	Not applicable		
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of the wildfire hazard. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
Impact on Capabilities:	This action would build upon the County's public education and outreach capabilities and adapt it to the Town's needs.		
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 the wildfire hazard and how climate change may exacerbate those risks.		
Mitigation Category	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action	Evaluation	
	No Action	Current problem exists	
	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 the guidance	



Action 2025-EastOttoT-10. Generators at Critical Facilities

Lead Agency:	Engineering		
Supporting Agencies:	Town Board		
Hazards of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	Critical facilities require backup power to ensure continuity of operations. The Town Hall, a designated emergency shelter, does not have back up power, which could impact the continuity of operations at the facilities in the event of a utility or power failure. High winds associated with severe storms and severe winter storms are known to cause utility failures, which would impact the continuity of operations at both critical facilities. Rising water levels from floods could impact these facilities; back-up generators would permit any influx of water to be removed from the facilities via pumping systems.		
Description of the Solution:	The Town Engineer will conduct a study to determine the required generator capacity to support the critical facility. The Town will then purchase and install the generator and all necessary electrical hookup components. The installation of the back-up emergency generators will ensure continuity of operations for the critical facilities and their operations during each identified hazard of concern. With expectations to provide essential services during times of emergency and otherwise, having a back-up power source is crucial. Long-term risks are mitigated through an emergency generator by reducing the likelihood of impacts from power outages, allowing essential services to continue.		
Estimated Cost:	High		
Potential Funding Sources:	FEMA HMA, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Town Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 4, 5		
Benefits:	This action protects public health and safety and ensures continued operation of critical facilities and their 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 critical facilities that could support future development.		
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of critical facilities and their 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	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives	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-EastOttoT-11. Streambank Erosion

Lead Agency:	Engineering		
Supporting Agencies:	Highway Department		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	In the Zoar Valley, the Connoisarauley Creek and Cattaraugus Creek have stream bank erosion issues, threatening encroachment onto nearby roads. Stream banks become eroded due to heavy rains from severe storms, degradation from flood waters and compacted snow and ice from severe winter storms. Stabilization measures, such as including gabions, riprap, drainpipes and/or related improvements, should be considered to prevent flooding and potential landslide issues.		
Description of the Solution:	The Town Engineer will assess the feasibility and cost-effectiveness of various stabilization measures, such as including gabions, riprap, drainpipes and/or related improvements to prevent future flooding surrounding the Connoisarauley Creek and Cattaraugus Creek.		
Estimated Cost:	High		
Potential Funding Sources:	FEMA HMA, Town Budget, NYS DEC		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 2		
Benefits:	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage to properties.		
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 surrounding the Connoisarauley Creek and Cattaraugus Creek will have its risk of flood impacts reduced.		
Impact on Critical Facilities/Lifelines:	Not applicable		
Impact on Capabilities:	Not applicable		
Climate Change Considerations:	Climate change is likely to result in more frequent and severe rainfall events. These events can lead to an influx of water, resulting in flooding conditions.		
Mitigation Category	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem exists
	Elevate nearby roads		Cost prohibitive
	Acquire all properties which flood		Cost prohibitive



Action 2025-EastOttoT-12. Salt and Sand Storage Shed

Lead Agency:	Highway Department		
Supporting Agencies:	Town Board		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	Open air storage of salt and sand leads to loss of materials from erosion and leaching. These materials exposed to heavy rains, snowfalls, and flooding conditions negatively impacts the environment and disrupts natural ecosystems. The loss of materials can result in the reduction in effectiveness of mitigating impacts from severe winter storms, as salt and sand is utilized to minimize potential risks on roadways, including ice and snow.		
Description of the Solution:	Construct a shed to house bulk salt and sand storage. The construction of this shed will reduce loss of material to erosion and leaching from rain and snow melt and ensure that there are enough critical materials for roadway treatment during storms.		
Estimated Cost:	Medium		
Potential Funding Sources:	FEMA HMA, USDA Community Facilities Grant Program, Town Budget		
Implementation Timeline:	Within 2 years		
Goals Met:	1, 4, 5		
Benefits:	This action will support the continuity of operations for the critical services within the Town, including the Highway Department and first responders. The Highway Department will maintain its capability to provide road treatments in time of need, ensuring roads are accessible for first responders and regular travelers.		
Impact on Socially Vulnerable Populations:	Vulnerable populations will have access to maintained roads, ensuring safe travel,		
Impact on Future Development:	Individuals living within future development in the Town will have access to safe, treated roadways.		
Impact on Critical Facilities/Lifelines:	The construction of this structure will enhance the transportation lifeline by ensuring roads are safe to traverse during severe winter storms. Furthermore, it will create an additional critical facility.		
Impact on Capabilities:	This action will ensure the Highway Department is able to maintain its capabilities.		
Climate Change Considerations:	Climate change is likely to result in more frequent and severe rainfall events. These events would further expose materials stored outside to the elements, degrading not just the materials, but pushing them into the environment, potentially disrupting the ecosystem.		
Mitigation Category	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem exists
	Install underground salt and sand facility		Not feasible
	Share a facility with another municipality		Administratively burdensome



Action 2025-EastOttoT-13. Comprehensive Emergency Management Plan Update

Lead Agency:	Town Board	
Supporting Agencies:	Cattaraugus Office of Emergency Services	
Hazard(s) of Concern:	<input checked="" type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Landslide <input checked="" type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Utility Failure <input checked="" type="checkbox"/> Wildfire
Description of the Problem:	The Town has an outdated Comprehensive Emergency Management Plan (CEMP). Hazard mitigation principles need to be integrated into the CEMP. A CEMP establishes the overall authority, roles, and functions performed during incidents. Incorporating hazard mitigation principles into a CEMP ensures hazard risk is identified.	
Description of the Solution:	The Town will update the Comprehensive Emergency Management Plan (CEMP), with support from the Cattaraugus Office of Emergency Services. The CEMP will integrate hazard mitigation principles into its contents, including addresses capabilities related to reduce the risk to the identified hazards of concern identified with this Hazard Mitigation Plan. The Town will send the CEMP to the County for review, followed by a State review.	
Estimated Cost:	Low	
Potential Funding Sources:	Town Budget, EMPG	
Implementation Timeline:	3 years	
Goals Met:	1, 2, 4, 5	
Benefits:	The CEMP details what the Town will do during a disaster (incident command implementation, command center location and activities, specific plans by department, etc.). The creation of a CEMP will permit the Town to integrate new plans, policies, capabilities, and hazard assessments.	
Impact on Socially Vulnerable Populations:	The section overview portion of the CEMP covers a discussion of a variety of topics, including population distribution and locations, including any concentrated populations of individuals with disabilities, others with access and functional needs, or individuals with limited English proficiency.	
Impact on Future Development:	Future development will be protected by the actions which the Town performs following the CEMP.	
Impact on Critical Facilities/Lifelines:	The section overview portion of the CEMP covers a discussion of a variety of topics, including vulnerable critical facilities (e.g. nursing homes, schools, hospitals, infrastructure).	
Impact on Capabilities:	This action will update a planning and response capability for the Town.	
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events. As impacts from climate change are increasingly felt, the contents in an CEMP, including in the basic plan and any annexes, may need to be updated.	
Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium <input type="checkbox"/> Low
Alternatives:	Action	Evaluation
	No Action	Current problem exists
	Integrate hazard mitigation principles in only hazard appendices	The plan will miss integration opportunities in the basic plan and annexes
	Ask County to integrate hazard mitigation into the County CEMP	Town CEMP will remain undeveloped



Action 2025-EastOttoT-14. Pandemic Education and Outreach

Lead Agency:	Town Supervisor		
Supporting Agencies:	Town Board, Cattaraugus County		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input type="checkbox"/> Flood <input type="checkbox"/> Landslide <input checked="" type="checkbox"/> Pandemic	<input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	The Town faces risk from pandemic but does not have a comprehensive education and outreach program to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods. The Town does not currently have hazard mitigation information and outreach on the Town website.		
Description of the Solution:	Create outreach materials, or utilize those from Cattaraugus County, on pandemic risks and methods of mitigation measures. Methods of distribution may include Town events, the Town newsletters, social media, the Town website, and having the materials on display for the public at Town libraries and offices. Outreach materials will be specified with education and information for the pandemic hazard.		
Estimated Cost:	Low		
Potential Funding Sources:	Town Budget		
Implementation Timeline:	1 year		
Goals Met:	1, 2, 3, 4		
Benefits:	This action will improve the public education and outreach capabilities in the Town by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Town.		
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will learn how to prepare for and mitigate the pandemic hazard which may impact them in the Town.		
Impact on Future Development:	Not applicable		
Impact on Critical Facilities/Lifelines:	Businesses, which may be considered critical facilities or lifelines, would be more informed on how to prepare for emergency events and mitigate the risks of the pandemic hazard. With these businesses becoming more resilient, this action would contribute to their continuity of operations.		
Impact on Capabilities:	This action would build upon the County's public education and outreach capabilities and adapt it to the Town's needs.		
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 the pandemic hazard and how climate change may exacerbate those risks.		
Mitigation Category	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input checked="" type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action	Evaluation	
	No Action	Current problem exists	
	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 the guidance	



Action 2025-EastOttoT-15. Bridge Evaluations

Lead Agency:	Highway Department		
Supporting Agencies:	Cattaraugus County Engineering, Cattaraugus County Public Works, NYS DOT		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	<p>Scour on bridges can develop due to erosion. Erosion may occur due to waters impacting the bridge's structure during severe winter storms and severe storms when the precipitation causes the water movements to be more erratic. Rising waters may cause flooding conditions to further erode the structure of the bridge. The following bridges in the jurisdiction should be evaluated to determine useability and to identify potential solutions, as necessary:</p> <ul style="list-style-type: none"> • East Otto 26 • East Otto 27 • East Otto 29 • East Otto 30 		
Description of the Solution:	<p>The Highway Department will work with Cattaraugus County Engineering and Public Works to evaluate each bridge to determine its current usability. The evaluation will indicate whether the County will need to replace or retrofit the identified bridges and causeways. This evaluation should be performed in partnership and/or with feedback from NYS DOT as necessary.</p>		
Estimated Cost:	Medium		
Potential Funding Sources:	FEMA HMA, County Budget, BRIDGENY		
Implementation Timeline:	Within 5 years		
Goals Met:	1		
Benefits:	This action will ensure the bridges in the jurisdiction are structurally sound to continue in operation.		
Impact on Socially Vulnerable Populations:	Not applicable		
Impact on Future Development:	Not applicable		
Impact on Critical Facilities/Lifelines:	This action will ensure transportation routes remain open and accessible to the public for daily use and evacuation needs; the bridges provide a point of access for first responders into communities that may have faced damage from a hazard event on either side of the bridges.		
Impact on Capabilities:	Not applicable		
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will work to ensure the structure of the bridges are impervious to erosion at their base due to rising water levels.		
Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem exists
	Remove bridges		May cause significant traffic problems
	Replace bridges		Cost prohibitive



Action 2025-EastOttoT-16. Federal Accreditation Standards

Lead Agency:	Municipal Engineer	
Supporting Agencies:	Cattaraugus County Public Works, FEMA, USACE, Dam Owners, Levee Owners	
Hazard(s) of Concern:	<input checked="" type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire
Description of the Problem:	Federal accreditation of floodwater retention structures shows the dams and levees have met and continue to meet the minimum regulatory standards set by the regulatory agencies. The accreditation of these structures show they are able to support efforts in the mitigation of flood risk.	
Description of the Solution:	The Town will partner with Cattaraugus County to assist with communications to dam and levee owners and operators. Communication with dam and levee owners and/or operators will be focused on ensuring the structure(s) are accredited and/or how to get the structure(s) accredited.	
Estimated Cost:	Low	
Potential Funding Sources:	County Budget, Jurisdictional Budget, Dam Owners, Levee Owners	
Implementation Timeline:	4 years	
Goals Met:	1, 2, 4, 6, 7	
Benefits:	Federal accreditation of floodwater retention structures shows the dams and levees have met and continue to meet the minimum regulatory standards set by the regulatory agencies. The accreditation of these structures show they can support efforts in the mitigation of flood risk.	
Impact on Socially Vulnerable Populations:	Accreditation of the structures show they can support efforts in the mitigation of flood risk, including impacts on the populations, and their property, near the structures.	
Impact on Future Development:	Accreditation of the structures show they can support efforts in the mitigation of flood risk. Future development near the structures will have reduced risk to the flood hazard.	
Impact on Critical Facilities/Lifelines:	Accreditation of the structures show they can support efforts in the mitigation of flood risk. Critical facilities near the structures will have reduced risk to the flood hazard. Dams and levees are critical facilities. Accredited structures meet the minimum regulatory standards set by the regulatory agencies.	
Impact on Capabilities:	This action will strengthen flood risk reduction capabilities. Having an accredited structure means they can support efforts in mitigating the risk of the flood hazard.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events, including heavy rainfalls and flooding events. Heavy rainfalls can cause additional pressure and stress on dams and levees, leading to failure. Federal accreditation of floodwater retention structures shows the dams and levees have met and continue to meet the minimum regulatory standards set by the regulatory agencies.	
Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium
Alternatives:	<input type="checkbox"/> Low	
	Action	Evaluation
	No Action	Current problem exists
	Only work to ensure dam accreditation	Levees may not be accredited
Only work to ensure levee accreditation	Dams may not be accredited	