



19. VILLAGE OF GOWANDA

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

19.1 HAZARD MITIGATION PLANNING TEAM

The Village of Gowanda identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Village departments. The Deputy Mayor 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 19-1 summarizes Village officials who participated in the development of the annex and in what capacity. Additional documentation of the Village’s planning activities through Planning Partnership meetings is included in Volume I.

Table 19-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Carol Sheibley, Deputy Mayor Address: 27 East Main Street, Gowanda, NY 14070 Phone Number: (716) 532-3353 Email: csheib@verizon.net	Name/Title: Nicholas Crassi, Disaster Coordinator Address: 27 East Main Street, Gowanda, NY 14070 Phone Number: (716) 640-2707 Email: racernick07@earthlink.net
National Flood Insurance Program Floodplain Administrator	
Name/Title: Jason Pickering, Code Enforcement Address: 27 East Main Street, Gowanda, NY 14070 Phone Number: (716) 532-3353 ext. 104 Email: gowandacode@gmail.com	
Additional Contributors	
Name/Title: Peter Sisti, Interim Mayor Method of Participation: Provided information in annex	
Name/Title: David Smith, Former Mayor Method of Participation: Provided updated information on NFIP	
Name/Title: Mark Burr, Engineer Method of Participation: Provided key information which assisted in the development of the Village’s annex.	

19.2 COMMUNITY PROFILE

The Village of Gowanda lies in the northwest region of Cattaraugus County in western New York State. The Village of Gowanda has a total area of 1.6 square miles. The Cattaraugus Creek flows through the Village. The Village lies in both Erie County and Cattaraugus County, with part of the Village in the Town of Collins (Erie County) and part



of the Village in the Town of Persia (Cattaraugus County). The Village is bordered to the west by the Town of Perrysburg and the Cattaraugus Nation Indian Reservation.

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 14 percent of the population is 5 years of age or younger, 18.4 percent is 65 years of age or older, 1.3 percent is non-English speaking, 11.7 percent is below the poverty threshold, and 22.3 percent is considered disabled.

19.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Gowanda 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 Gowanda to identify opportunities for integrating mitigation concepts into ongoing Village procedures.

19.3.1 Planning and Regulatory Capability and Integration

Table 19-2 summarizes the planning and regulatory tools that are available to Gowanda.

Table 19-2. 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	Chapter 26: Uniform Code Enforcement	State and Local	Code Enforcement

How has or will this be integrated with the HMP and how does this reduce risk?
The purpose of this Chapter is to provide for enforcement procedures in the Village of Gowanda of the New York Uniform Fire Prevention and Building Code, hereinafter called "Uniform Code".



	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	Chapter 30: Zoning	Local	CEO
How has or will this be integrated with the HMP and how does this reduce risk? Provides minimum requirements for the construction of structures in the Village, including construction in designated Flood Hazard Areas and Floodways, and for the issuance of building permits, special use permits and variances.				
Subdivision Code	Yes	Chapter 31: Subdivision Regulations	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The purpose of these regulations as herein adopted shall be to provide for the orderly growth and development of the Village with adequate provision for the housing, transportation, distribution, comfort, convenience, safety, health, and welfare of its population.				
Site Plan Code	Yes	Chapter 31, Article II: Site Plan Review Procedures	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? It is the purpose and intent of this chapter to protect and promote the health, safety and general welfare of the residents of the Village of Gowanda by preserving the historic character and appearance of the Village of Gowanda, the attractiveness of whose residential and business areas is the economic mainstay of the community. The following site plan provisions are intended to secure compliance with the requirements and standards set forth in this chapter and with accepted professional design practice for such site improvements as grading, drainage, means of access, signs, architectural features, screens, sidewalks, curbs, parking, landscaping, fences, driveways, location and dimension of buildings. It further is to assure that the development and redevelopment of land within the village is appropriate and compatible with the development of surrounding land and consistent with the approved Master Plan, It is not intended to prohibit development that is otherwise permitted under the applicable zoning regulations; rather it is intended to improve the function, design, aesthetics' and safety of that development and to provide a context for the diverse yet harmonious architectural and landscape design.				
Stormwater Management Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Post-Disaster Recovery/ Reconstruction Code	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Real Estate Disclosure Requirements	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent
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.				
Growth Management	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Environmental Protection Ordinance(s)	Yes	Local Law 1, 2002: Urban Tree Local Law	Local	Tree Committee
How has or will this be integrated with the HMP and how does this reduce risk? This local law establishes policies, regulations, and standards necessary to ensure that the Village will continue to realize the benefits provided by its urban trees. The provisions of this local law are enacted to: 1. Establish and maintain the maximum sustainable amount of tree cover on public and private lands in the Village;				



	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
2. Maintain Village trees in a healthy and non-hazardous condition through good arboricultural practices; 3. Establish and maintain appropriate diversity in tree species and age classes to provide a stable and sustainable urban forestation. 4. Protect and enhance the Village's small-town characteristics by assuring that decisions with regard to urban trees are consistent with the Village Master Plan				
Flood Damage Prevention Ordinance	Yes	Chapter 86: Flood Damage Protection	Federal, State, County and Local	Code Enforcement
How has or will this be integrated with the HMP and how does this reduce risk? It is the purpose of this local law to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to: (1) 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; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program.				
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	Yes	Village of Gowanda Master Plan, 1999	Local	Planning Board
How has or will this be integrated with the HMP and how does this reduce risk? The Master Plan guides the development of the physical environment in the Village.				
Capital Improvement Plan	No	-	-	-
How has or will this be integrated with the HMP and how does this reduce risk?				
Disaster Debris Management Plan	Yes	Cattaraugus County CEMP, Appendix 5	County	Cattaraugus County
How has or will this be integrated with the HMP and how does this reduce risk? The Disaster Debris Management Plan establishes procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner.				



	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
Floodplain Management or Watershed Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
Stormwater Management Plan How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
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	-	-	-



	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
Other	No	-	-	-

How has or will this be integrated with the HMP and how does this reduce risk?

RESPONSE/RECOVERY PLANNING

Comprehensive Emergency Management Plan	Yes	Comprehensive Emergency Management Plan (CEMP)	County	OES
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How has or will this be integrated with the HMP and how does this reduce risk?

The CEMP defines the scope of preparedness and emergency management activities necessary in the County. This document assigns responsibility to organizations and individuals for carrying out specific actions that exceed routine responsibility at projected times and places during an emergency; sets lines of authority and organizational relationships and shows how all actions will be coordinated; identifies how people and property are protected; and identifies personnel, equipment, facilities, supplies, and other resources available within the jurisdiction or by agreement with other jurisdictions.

Continuity of Operations Plan	Yes	Chapter 2: Continuity of Government	Local	Village Board
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How has or will this be integrated with the HMP and how does this reduce risk?

The New York State Defense Emergency Act, in section twenty-nine, thereof authorizes political subdivisions of the state to provide for the continuity of their governments in the event of an actual or imminent attack upon the United States by an enemy or foreign nation. The General Municipal Law, in section sixty thereof, authorized political subdivisions to provide for the continuity of their governments in the event of other public disasters, catastrophes, or emergencies. Based on the authority contained in such laws Chapter 2 is adopted so that on such occasions the government of the Village of Gowanda, New York may continue to function properly and efficiently under emergency conditions.

Substantial Damage Response Plan	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

Threat and Hazard Identification and Risk Assessment	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

Post-Disaster Recovery Plan	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

Public Health Plan	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

Other	No	-	-	-
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How has or will this be integrated with the HMP and how does this reduce risk?

19.3.2 Development and Permitting Capability

Table 19-3 summarizes the capabilities of Gowanda to oversee and track development.



Table 19-3. 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	There is land available for future development in the Village.

19.3.3 Administrative and Technical Capability

Table 19-4 summarizes potential staff and personnel resources available to Gowanda and their current responsibilities that contribute to hazard mitigation.

Table 19-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
ADMINISTRATIVE CAPABILITY		
Planning Board	Yes	The Planning Board makes recommendations to the Village Board regulations relating to any subject matter over which the Planning Board has jurisdiction; reviews and makes recommendations on any proposed Village comprehensive plan or amendments; has the authority to make investigations, maps, reports and recommendations relating to the planning and development of the Village; reviews all applications for special use permits, site plan review, master plan developments and amendments to the zoning ordinance; reviews all applications for subdivisions under the provisions of the Village subdivision regulations; has the authority to review and make recommendations on any other matters referred to it by the Village Board.
Zoning Board of Adjustment	Yes	The Board of Appeals may interpret the Zoning Chapter in cases of uncertainty as to the meaning of any of its provisions; review any order, requirement, decision, or determination made by any administrative official charged with the enforcement of Chapter 30: Zoning; vary or modify the application of the provisions of Chapter 30: Zoning subject to appropriate conditions and safeguards where there are practical difficulties or unnecessary hardships in the way of carrying out the strict letter of Chapter 30: Zoning so that the spirit of the Zoning Code shall be observed, public safety, and welfare secured, and substantial justice done. Such hardship shall be due to the unique circumstances of the parcel of land for which a



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		variance is required. Variances may only be granted where the essential character of the district in which located will not be materially altered; grant a permit, subject to appropriate conditions and safeguards, wherever, it is provided in Chapter 30: Zoning that the approval of the Board is required.
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	The Village of Gowanda Public Works Department is the operations component of Village government. The Department manages, operates and maintains the streets, storm water drainage system, landfill post closure operations, parks, water treatment plant, water distribution system, wastewater treatment plant, New York State Department of Health approved Environmental Lab, wastewater collection system, municipal parking, sidewalks, equipment maintenance garage and refuse and garbage disposal.
Construction/Building/Code Enforcement Department	Yes	Code Enforcement enforces the construction code and administers the NFIP.
Emergency Management/Public Safety Department	Yes	Village of Gowanda Police Department. The Village is divided into two counties at the Cattaraugus Creek. The Cattaraugus County portion of the Village is located in the Town of Persia and the Erie County portion is located in the Town of Collins. The Gowanda Fire Department serves the Gowanda Community and surrounding areas with Fire protection and Emergency/Rescue needs on a Volunteer basis.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	The Village of Gowanda Public Works manages, operates and maintains the streets, storm water drainage system, landfill post closure operations, parks, water treatment plant, water distribution system, wastewater treatment plant, New York State Department of Health approved Environmental Lab, wastewater collection system, municipal parking, sidewalks, equipment maintenance garage and refuse and garbage disposal.
Mutual aid agreements	Yes	County and surrounding municipalities for emergency response
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other: Tree Committee	Yes	The Village Tree Committee consists of a minimum of three (3) members and an ex officio member who is a Trustee of



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		<p>the Village Board. The terms of office is three years or until their successors are appointed. The Committee shall study the problems and determine the needs of the Village in connection with the Village's urban forestry program; shall submit to the Village Board of Trustees at the last Board meeting in December a comprehensive Village Tree Plan for approval. That plan shall include as a minimum, the care, preservation, pruning, planting, replanting, removal or disposition of trees or shrubs in public parks, and other Village public areas; shall establish and maintain the Village Tree Inventory; shall, working with the Erie and Cattaraugus County Foresters and others as appropriate, establish and amend as necessary, the list of type and kind of trees acceptable for planting in the Village public areas; shall assist the officials of the Village, as well as residents in dissemination of information regarding the selection, planting, and maintenance of trees within the Village, whether on public or private property; shall make recommendations to the Village Board of Trustees as to desirable legislation concerning the tree program and associated activities; shall oversee the implementation and execution of the official comprehensive Village Tree Plan as approved and funded; may identify trees both public and private as "Heritage Trees" and organize "Heritage Tree" programs.</p>
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	Yes	Village Engineer
Planners or engineers with an understanding of natural hazards	Yes	Village Engineer
Staff with expertise or training in benefit/cost analysis	Yes	Village Engineer
Professionals trained in conducting damage assessments	Yes	Village Engineer
Personnel skilled or trained in GIS and/or Hazus applications	No	County Training
Staff that work with socially vulnerable populations or underserved communities	No	-
Environmental scientists familiar with natural hazards	No	-
Surveyors	No	-
Emergency manager	Yes	Nicholas Crassi, Disaster Coordinator
Grant writers	No	-
Resilience Officer	No	-



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

19.3.4 Fiscal Capability

Table 19-5 summarizes financial resources available to Gowanda.

Table 19-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
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])	Yes

19.3.5 Education and Outreach Capability

Table 19-6 summarizes the education and outreach resources available to Gowanda.

Table 19-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	Yes	Emergency Management
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	Yes	Code Red/911
Natural disaster/safety programs in place for schools	Yes	Internal Training
Organizations that conduct outreach to socially vulnerable populations and underserved populations	No	-



Outreach Resources	Available? (Yes/No)	Comment
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	No	-

19.3.6 Community Classifications

Table 19-7 summarizes classifications for community programs available to Gowanda.

Table 19-7. Community Classifications

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

N/A = Not applicable

— = Unavailable

19.3.7 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 19-8 summarizes the adaptive capacity for each identified hazard of concern and the Village’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 19-8. 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 Failure	Moderate



Hazard	Adaptive Capacity - Strong/Moderate/Weak
Wildfire	Moderate

19.4 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 19-1 is responsible for maintaining this information.

19.4.1 NFIP Statistics

Table 19-9 summarizes the NFIP policy and claim statistics for Gowanda.

Table 19-9. Gowanda NFIP Summary of Policy and Claim Statistics

# Policies	57
# Claims (Losses)	136
Total Loss Payments	\$2,332,780.40
# Repetitive Loss Properties (NFIP definition)	10
# 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

19.4.2 Flood Vulnerability Summary

Table 19-10 provides a summary of the NFIP program in Gowanda.

Table 19-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction.	Areas prone to flooding in the Village are within the FEMA-defined SFHAs.
Do you maintain a list of properties that have been damaged by flooding?	No



NFIP Topic	Comments
Do you maintain a list of property owners interested in flood mitigation?	No
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	Unknown
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	<ul style="list-style-type: none"> Point Peter Brook Reservoir repairs to correct PW575 & PW576 from flood 2013 date of completion Dec 2024, construction bid award. Thatcher Brook Task Force project. Village of Gowanda Thatcher Brook Diversion Channel, southside of Village, in the design phase.
How do you make Substantial Damage determinations?	No process in place
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	Unknown
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	Unknown
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes, however the maps are outdated.
NFIP Compliance	
What local department is responsible for floodplain management?	Code Enforcement Department
Are any certified floodplain managers on staff in your jurisdiction?	Code Enforcement/Building Inspectors
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes
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?	Yes (all aspects)
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Village Engineer on staff
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Code enforcement
What are the barriers to running an effective NFIP program in the community, if any?	None currently
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	The violations include failure to properly elevate air conditions and generators above the BFE in the floodplain, and properly storing mobile homes or campers within a flood zone.
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	CAC: November 2, 2009 CAV: May 13, 2021
What is the local law number or municipal code of your flood damage prevention ordinance?	Chapter 86: Flood Damage Protection
What is the date that your flood damage prevention ordinance was last amended?	April 9, 2019



NFIP Topic	Comments
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Yes, it meets the 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 Village Board is planning board reviews all variances/plans with Code Officers
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	Currently working with Army Corp of Engineers which will improve Community Rating System

19.5 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 19-11 through Table 19-13.

Table 19-11. 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	0	0	0	0
Permits within SFHA	0	0	0	0
2020				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2021				
Total Permits	1	0	0	1
Permits within SFHA	0	0	0	0
2022				
Total Permits	0	0	0	0
Permits within SFHA	0	0	0	0
2023				
Total Permits	0	0	0	0
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 19-12. 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
There has been no recent major development or infrastructure between 2019 to present.					

* Only location-specific hazard zones or vulnerabilities identified.

Table 19-13. 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
US Army Corps – Thatcher Brook bypass channel	Natural Infrastructure	1	Parallel from north side of railroad tracks from Thatcher Brook to Cattaraugus Creek	Flood	In the study phase, scheduled for construction to begin early 2027

19.6 JURISDICTIONAL RISK ASSESSMENT

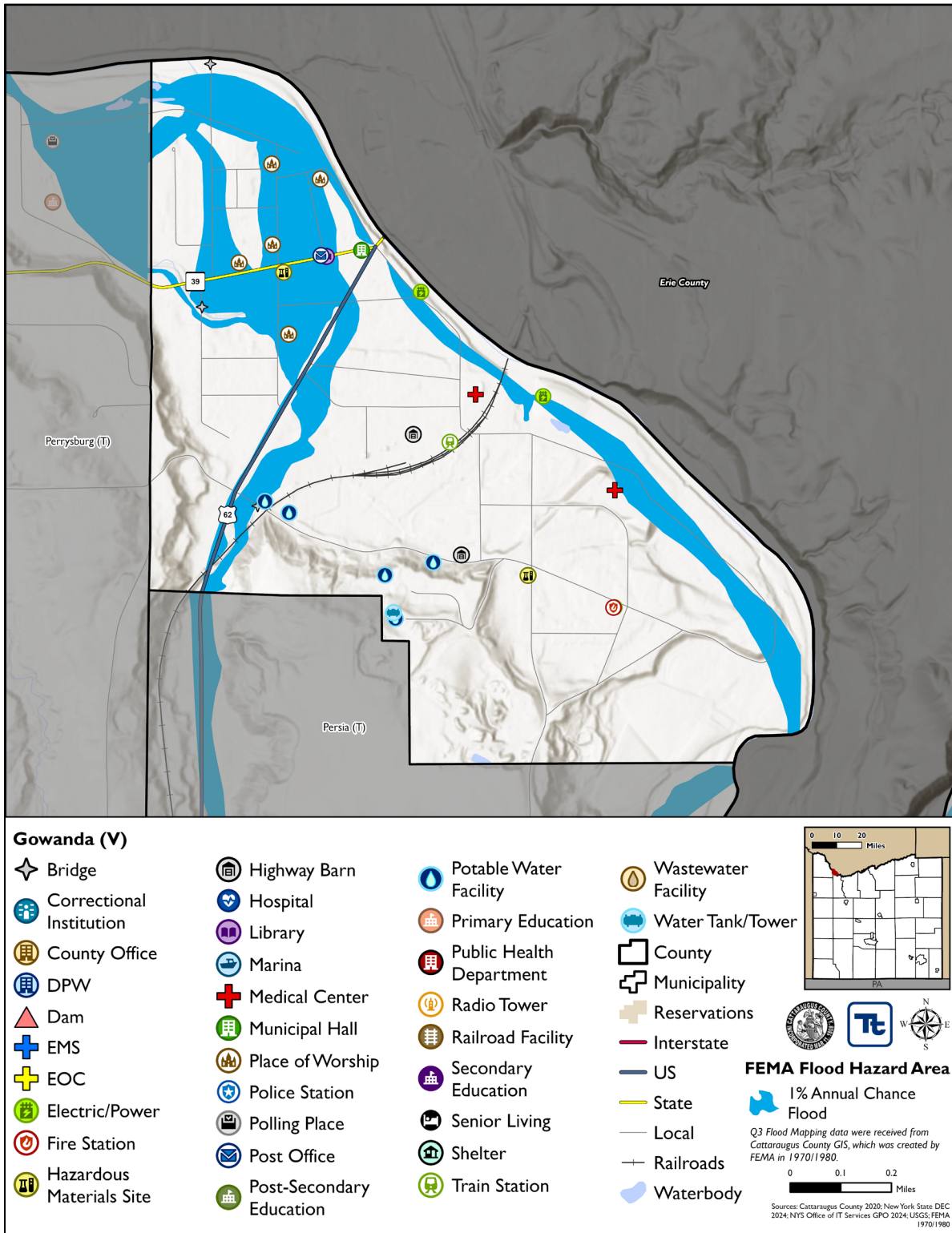
The hazard profiles in Volume I provide detailed information regarding each planning partner’s vulnerability to the identified hazards, including summaries of Gowanda’s risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

19.6.1 Hazard Area

Hazard area maps provided below illustrate the probable hazard areas impacted within the Village are shown in Figure 19-1 through Figure 19-2. 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 Gowanda has significant exposure. The maps show the location of potential new development, where available.



Figure 19-1. Gowanda Flood Hazard Area Extent and Location Map

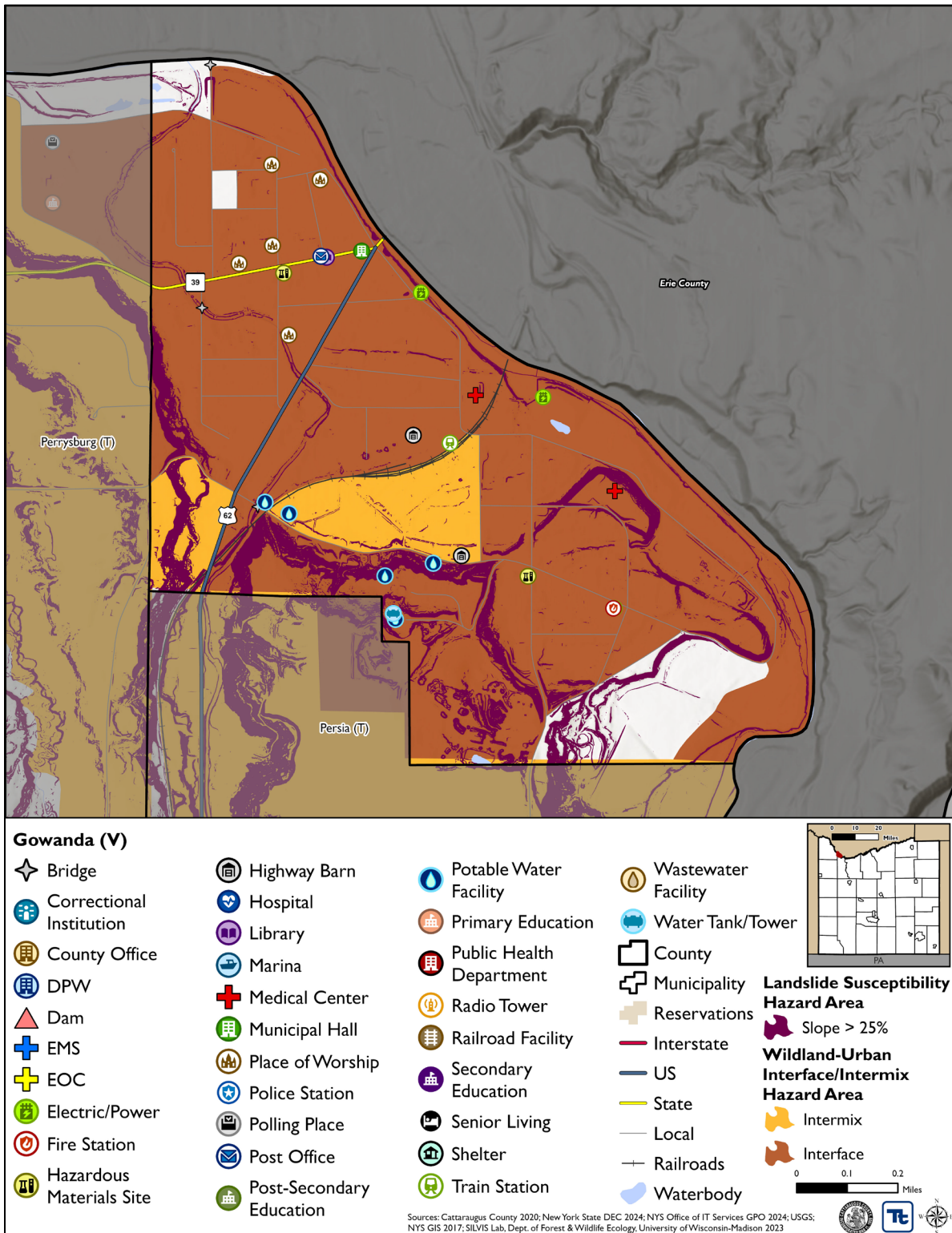


Note: The flood hazard area shown is limited to the FEMA-defined flood hazard areas. Areas of localized flooding are not reflected in the above Figure.

The boundary for the Village shown is restricted to Cattaraugus County. The Village's boundary extends into the neighboring Erie County.



Figure 19-2. Gowanda Landslide and Wildfire Hazard Area Extent and Location Map



Note: The boundary for the Village shown is restricted to Cattaraugus County. The Village's boundary extends into the neighboring Erie County.



19.6.2 Hazard Event History

The history of natural and non-natural hazard events in Gowanda is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 19-14 provides details on loss and damage in Gowanda during hazard events since the last hazard mitigation plan update.

Table 19-14. Hazard Event History in Gowanda

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Gowanda
October 31- November 1, 2019	DR-4472	No	Severe Storms, Straight-Line Winds, and Flooding	No damages or losses in the Village.
March 13, 2020	EM-3434 DR-4480	Yes	COVID-19 Pandemic	No damages or losses in the Village.
January 12, 2020	High Wind	N/A	High wind	No damages or losses in the Village.
July 16, 2020	Thunderstorm Wind	N/A	Trees and wires were reported down in Gowanda.	No losses. Fire Department and Highway Department facilities lost electricity.
July 19, 2020	Thunderstorm Wind	N/A	Multiple reports of trees down around Gowanda, Ashville Bay, Napoli and Portville.	No damages or losses in the Village.
August 15, 2020	Flash Flood	N/A	Marble Road and Potter Road in Lime Lake were reported to be washed out by law enforcement.	No damages or losses in the Village.
September 7, 2020	Thunderstorm Wind	N/A	Property damage in Olean.	No damages or losses in the Village.
November 15, 2020	High Wind	N/A	Property damage throughout Cattaraugus County.	No damages or losses in the Village.
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.	No damages or losses in the Village.
December 11, 2021	High Wind	N/A	Dozens of reports of trees and powerlines down were received.	No damages or losses in the Village.
March 6, 2022	High Wind	N/A	High wind	No damages or losses in the Village.
July 24, 2022	Thunderstorm Wind	N/A	Trees and powerlines reported down in East Otto, Randolph, and South Dayton.	No damages or losses in the Village.
November 20, 2022	EM-3589	Yes	Severe Winter Storm and Snowstorm	Additional snow removal

EM = Emergency Declaration (FEMA)

FEMA = Federal Emergency Management Agency

DR = Major Disaster Declaration (FEMA)

N/A = Not applicable



19.6.3 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 Gowanda .

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. Gowanda 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 Village indicated the following:

- There is no risk to the Dam and Levee Failure hazard, as there are no nearby dams which may impact the Village.
- The Landslide hazard has been decreased from ‘Medium’ to ‘Low’ due to the minimally impacted areas to the hazard.

Table 19-15 shows Gowanda’s final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 19-15. Hazard Ranking

Hazard	Rank
Dam and Levee Failure	No Risk
Flood	High
Landslide	Low
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 19-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 19-16. 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		
Emmanuel Lutheran Church	Place of Worship	X	-	2025-GowandaV-01	-



Name	Type	Vulnerability		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
First Baptist Church	Place of Worship	X	-	2025-GowandaV-01	-
Free Methodist Church	Place of Worship	X	-	2025-GowandaV-01	-
Gowanda Free Library	Library	X	-	2025-GowandaV-01	-
Gowanda Post Office	Post Office	X	-	2025-GowandaV-01	-
Persia 13	Bridge	X	-	2025-GowandaV-11	-
St Mary's Episcopal Church	Place of Worship	X	-	2025-GowandaV-01	-
United Methodist Church	Place of Worship	X	-	2025-GowandaV-01	-
Verizon CO (VZ-NY62848)	Hazardous Materials Site	X	-	2025-GowandaV-01	-

Source: Cattaraugus County 2024

19.6.4 Identified Issues

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

- The Village has numerous critical facilities in the Special Flood Hazard Area and may have an increased risk to flooding impacts. The following critical facilities are located in the Village in Cattaraugus and/or Erie County:
 - Verizon CO (VZ-NY62848)
 - Gowanda Free Library
 - Gowanda Post Office
 - Emmanuel Lutheran Church
 - First Baptist Church
 - Free Methodist Church
 - St Mary's Episcopal Church
 - United Methodist Church
- 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 roadways may be caused by debris in culverts from severe storms and severe winter storms. There are multiple roads in Village 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:
 - Johnson Street
 - West Main Street
 - Jamestown Street (near the railroad)
- Thatcher Brook is prone to woody debris jams which increases flood risk. The Brook has one trash rack which is effective at reducing the debris. The trash rack at Point Peter Brook is undersized and should be increased in size to maintain the capacity needed. Additional mitigation is needed at both sites.
- 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 Village 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:

- Union Street Culvert (Town of Collins, Erie County)
- Buffalo Street Culvert (NYSDOT)
- Rail Road Bridge Culvert (Erie County IDA)
- Cemetery Hill Culvert (Town of Collins, Erie County)
- Chapel Street Bridge Culvert (Cattaraugus County)
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Village has 11 repetitive loss properties, but other properties may be impacted by flooding as well.
- The Village does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.
- The Village 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 Village does not currently have hazard mitigation information and outreach on the Village website.
- The Village 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 Village does not currently have hazard mitigation information and outreach on the Village website.
- The Village faces significant risk from the flood hazard; however, there is no warning system in place to detect when waters are breaching banks and to notify the public of the impending hazard. Flood waters can cause negative impacts to private and public property, close routes for travel and evacuation, and have the potential to cause health risks due to contaminated waters and debris.
- The Village faces risk from landslide 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 Village does not currently have hazard mitigation information and outreach on the Village 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:
 - Persia 13

19.7 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.



19.7.1 Past Mitigation Action Status

Table 19-17 indicates progress on the Village'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.

19.7.2 Additional Mitigation Efforts

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



Table 19-17. 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-Gowanda-001	Critical Facilities Outreach	Flood	FPA	<p>Problem: The village has numerous critical facilities in the Special Flood Hazard Area. These facilities are not municipally owned:</p> <ul style="list-style-type: none"> • Verizon CO (VZ-NY62848) • Gowanda Free Library • Emmanuel Lutheran Church • First Baptist Church • Free Methodist Church • St Mary's Episcopal Church • United Methodist Church <p>Solution: The FPA will conduct outreach to facility managers to discuss flood exposure and potential mitigation actions.</p>	<p>1. No Progress 2. Due to other Village priorities this action has not been completed.</p>	<p>1. Include 2. Update with any additional critical facilities 3. Not applicable</p>
2020-Gowanda-002	Flood Warning System	Flood	FPA, OEM	<p>Problem: Flood prone areas require a warning system.</p> <p>Solution: The village will evaluate areas that need a flood warning system constructed and construct the system where necessary. The system will place specific emphasis on warnings for water and sewer facilities. The Thatcher Brook Diversion Channel is currently in design phase. The System will also be able to be used to distribute warnings regarding other emergency events.</p>	<p>1. In Progress 2. Code Red is only part of an early warning system. There is a desire to install a mechanism to identify high water events which will communicate with the Disaster Coordinator. That individual will then utilize Code Red to notify the public of impending hazard events.</p>	<p>1. Include 2. Not applicable 3. Not applicable</p>
2020-Gowanda-003	Flood Risk Management	Flood	FPA	<p>Problem: Flooding is a regional problem, and natural watercourses need to kept clear of debris to reduce flooding.</p>	<p>1. Ongoing Capability 2. Annual removal of debris from Thatcher Brook.</p>	<p>1. Discontinue 2. Not applicable 3. Project complete</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.
	Feasibility Study			Solution: Continue to support Flood Risk management Feasibility Study in the Village of Gowanda, and Towns of Perrysburg, Persia, and Dayton, as well as Erie County and the Town of Collins. The project includes debris removal in waterways.		
2020-Gowanda-004	Landslide study	Landslide	Engineer	<p>Problem: The Gowanda water reservoir on Point Peter Rd is prone to landslides along its banks.</p> <p>Solution: Study slide conditions in the Village of Gowanda near the Gowanda water reservoir on Point Peter Rd and conduct bank stabilization.</p>	<p>1. Complete</p> <p>2. Project completed in October 2024. This particular section of road is within the jurisdiction of the Town of Persia. The Town has conducted some preliminary investigation into developing a plan to help reduce the erosion of the steep bank.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Project complete</p>
2020-Gowanda-005	Establish Tree Maintenance Program	Severe Storm, Severe Winter Storm, Utility Failure	DPW	<p>Problem: Falling tree branches can result in property damage and utility failure.</p> <p>Solution: The village will establish a tree maintenance program to reduce the likelihood of falling tree branches.</p>	<p>1. Complete</p> <p>2. Tree Committee has been established and is working with the Highway Department for maintenance.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Project complete</p>
2020-Gowanda-006	Stream Bank Erosion Mitigation	Severe Storm, Flood, Landslide	SWCD, DPW	<p>Problem: Allen Springs and Thatcher Brook have stream bank erosion issues.</p> <p>Solution: The village will work with SWCD to identify locations to mitigate stream bank erosion through seeding, rip rap, and stream bank stabilization. The village will secure necessary permits and complete the identified mitigation actions.</p>	<p>1. Ongoing Capability</p> <p>2. Banks are actively monitored by Public Works, who takes action when needed. This is a LEWPA project scheduled for completion in 2025.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Project complete</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-Gowanda-007	Emergency Operations Plan	All hazards	OEM	<p>Problem: The village lacks an emergency operations plan.</p> <p>Solution: The village will write and adopt an emergency operations plan. The plan will be integrated with the proposed flood warning system.</p>	<p>1. Complete</p> <p>2. The Village has a CEMP/EOP in place, which is updated annually.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Project complete</p>
2020-Gowanda-008	Stormwater Improvements	Flood, Severe Storm	Engineer, DPW	<p>Problem: Johnson Street, West Main Street, and Jamestown Street (near the railroad) requires stormwater drainage to be established to eliminate residential flooding.</p> <p>Solution: The Village Engineer will design the necessary stormwater improvements and new features. The DPW will install the stormwater system components designed by the Engineer.</p>	<p>1. In Progress</p> <p>2. The project will be included in an upcoming Diversion Channel Project.</p>	<p>1. Include</p> <p>2. Not applicable</p> <p>3. Not applicable</p>
2020-Gowanda-009	Thatcher Brook Trash Rack	Flood, Severe Storm	Engineer	<p>Problem: Thatcher Brook is prone debris jams which increases flood risk. The Brook has one trash rack which is effective at reducing the debris. Additional mitigation is needed.</p> <p>Solution: The village will work to gain the necessary permitting and install a second trash rack on Thatcher Brook.</p>	<p>1. In Progress</p> <p>2. In discussion phase with the Towns of Dayton and Persia. Evaluating alternatives.</p>	<p>1. Include</p> <p>2. Not applicable</p> <p>3. Not applicable</p>
2020-Gowanda-010	Culvert Upgrades	Flood, Severe Storm	Public Works	<p>Problem: The following culverts in Gowanda have incurred damages and require to be upsized:</p> <ul style="list-style-type: none"> • Grannis Brook • Union Street • Buffalo Street 	<p>1. In Progress</p> <p>2. Discussion occurring but no physical action. The Village of Gowanda does not own or maintain any of the structures listed. The New York State DOT and the Town of Collins</p>	<p>1. Include</p> <p>2. Not applicable</p> <p>3. Not applicable</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.
				<ul style="list-style-type: none"> • Rail Road Bridge • Cemetery Hill culvert • Thatcher Brook • Chapel Street Bridge <p>Solution: The village will make the necessary upgrades to the identified culverts.</p>	own these structures. The Village will not perform the work to upgrade the structures listed, however, the Village will insist with the appropriate jurisdictions and lobby for upgrades/replacements.	
2020-Gowanda-011	Gowanda Historic Hollywood Theater	Flood	Village, County, Facility manager	<p>Problem: The Gowanda Historic Hollywood Theater at 39 W. Main Street is a non-profit cultural asset that is also commonly used for outreach on hazards and emergency management education events. The corner of the building rests in the floodplain and the structure has been impacted by flooding in the past.</p> <p>Solution: The village will work with Cattaraugus County to assist the Gowanda Historic Hollywood Theater as it works to identify potential mitigation actions and carry them out. The most likely actions would involve floodproofing the facility.</p>	<ol style="list-style-type: none"> 1. Complete 2. Flood proofing was conducted at the site as part of various facility upgrades. 	<ol style="list-style-type: none"> 1. Discontinue 2. Not applicable 3. Flood proofing was conducted at the site as part of various facility upgrades.
2020-Gowanda-012	Repetitive Loss Properties	Flood, Severe Storm	NFIP Floodplain Administrator, supported by homeowners	<p>Problem: Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The village has 46 repetitive loss properties.</p> <p>Solution: Conduct outreach to 60 flood-prone property owners, including RL/SRL property owners and provide information on</p>	<ol style="list-style-type: none"> 1. In Progress 2. The Village is currently working the Army Corps of Engineers and FEMA on a Diversion Channel project to reduce or eliminate flood risk. 	<ol style="list-style-type: none"> 1. Include 2. Update with current repetitive loss property number 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.
				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).		
2020-Gowanda-013	Temporary and Permanent Housing	All hazards	Village administration, county	<p>Problem: The village has not identified appropriate locations for the placement of temporary and permanent housing.</p> <p>Solution: The village will work with the county to identify appropriate locations for temporary and permanent housing.</p>	<p>1. Complete</p> <p>2. The Village has identified the Gowanda Fire Hall, Gowanda High School, and the Free Methodist Church as locations for temporary and permanent housing.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Project complete</p>



19.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Gowanda 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 Gowanda 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 Village priorities.

Table 19-18 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 19-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 19-18. 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										
Flood	X	X			X			X	X	X
Landslide				X			X			
Pandemic				X			X			
Severe Storm	X	X			X			X	X	
Severe Winter Storm	X	X			X				X	
Utility Failure		X							X	
Wildfire				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 19-19. 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-GowandaV-01	Critical Facility Protection	1	1	1	1	1	1	0	1	1	1	0	1	1	0	11	High
2025-GowandaV-02	Floodprone Roads	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-GowandaV-03	Thatcher Brook and Peter Point Brook Trash Racks	1	1	1	1	1	0	1	1	1	0	1	1	0	1	11	High
2025-GowandaV-04	Undersized Culverts	1	1	1	1	1	0	1	0	1	1	1	1	1	0	11	High
2025-GowandaV-05	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	0	1	1	0	1	11	High
2025-GowandaV-06	Substantial Damage Management Plan	1	1	1	1	1	1	1	1	1	1	1	1	1	0	13	High
2025-GowandaV-07	Wildfire Education and Outreach	1	1	1	1	1	1	0	1	1	0	1	1	0	1	11	High
2025-GowandaV-08	Pandemic Education and Outreach	1	1	1	1	1	1	0	1	1	0	1	1	0	1	11	High
2025-GowandaV-09	Flood Warning System	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-GowandaV-10	Landslide Education and Outreach	1	1	1	1	1	1	0	1	1	0	1	1	0	1	11	High
2025-GowandaV-11	Bridge Evaluations	1	1	1	1	0	0	1	1	1	1	1	1	1	0	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-GowandaV-01. Critical Facility Protection

Lead Agency:	Critical Facility Owners and Managers		
Supporting Agencies:	Village 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:	<p>The Village has numerous critical facilities in the Special Flood Hazard Area and may have an increased risk to flooding impacts. The following critical facilities are located in the Village in Cattaraugus and/or Erie County:</p> <ul style="list-style-type: none"> • Verizon CO (VZ-NY62848) • Gowanda Free Library • Gowanda Post Office • Emmanuel Lutheran Church • First Baptist Church • Free Methodist Church • St Mary's Episcopal Church • United Methodist Church 		
Description of the Solution:	<p>The Village will conduct a feasibility assessment to determine what additional floodproofing measures are needed at the critical facilities to protect them to the 500-year flood level. Options include:</p> <ul style="list-style-type: none"> • Elevation of facility • Floodproofing of facility • Mobile flood barriers <p>Once the most cost-effective option is identified, the Village will carry out the option.</p>		
Estimated Cost:	Medium		
Potential Funding Sources:	FEMA HMA, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Village Budget		
Implementation Timeline:	Within 5 Years		
Goals Met:	1, 3, 5		
Benefits:	Ensures continuity of operations of several critical facilities in the Village.		
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders and emergency managers to maintain critical services that socially vulnerable populations rely on.		
Impact on Future Development:	The risk of significant damage occurring to the structure will be reduced, which will allow critical operations to be maintained or only briefly interrupted in severe events. This provides continued support to both current and future development in the service area.		
Impact on Critical Facilities/Lifelines:	This action will protect critical facilities, maintaining the critical services that it provides.		
Impact on Capabilities:	This action improves continuity of operations during a flood event, allows for a more rapid return to pre-disaster capabilities after a flood event, and faster deployment of post disaster capabilities.		
Climate Change Considerations:	This action addresses anticipated increases in flooding frequency and severity through protection to the 500-year (0.2-percent annual chance) flood level.		
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



	Relocate facility	Relocation is expensive and results in loss or delay of critical services in the immediate area
	Establish plans to enter into MOU with neighboring critical facilities to provide service during flood events	Reduction in response times and delay of critical services in the immediate area.



Action 2025-GowandaV-02. Floodprone Roads

Lead Agency:	Highway Department		
Supporting Agencies:	Building Code Enforcement, Engineering		
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 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 Village 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"> • Johnson Street • West Main Street • Jamestown Street (near the railroad). 		
Description of the Solution:	<p>The Village 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, Village 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 Village'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:	Action		Evaluation
	No Action		Current problem exists
	Relocate all flood-prone road system		Not feasible
	Raise all flood prone roads		Cost prohibitive



Action 2025-GowandaV-03. Thatcher Brook and Peter Point Brook Trash Racks

Lead Agency:	Engineering	
Supporting Agencies:	NYS DEC	
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 type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire
Description of the Problem:	Thatcher Brook is prone to woody debris jams which increases flood risk. Debris jams typically occur during periods of heavy rainfall, common with severe storms. The Brook has one trash rack which is effective at reducing the debris. The trash rack at Point Peter Brook is undersized and should be increased in size to maintain the capacity needed. Additional mitigation is needed at both sites.	
Description of the Solution:	The Village will work to gain the necessary permitting and install a second trash rack on Thatcher Brook and upsize the trash rack at Peter Point Brook.	
Estimated Cost:	Medium	
Potential Funding Sources:	FEMA HMA, Village Budget	
Implementation Timeline:	Within 5 years	
Goals Met:	1, 2, 4	
Benefits:	This installation of a second trash rack and upsize of another will reduce the likelihood of a debris jam caused by refuse and ultimately decrease overall risk to flooding occurrences.	
Impact on Socially Vulnerable Populations:	This action will assist socially vulnerable populations whose properties are impacted by flooding from Thatcher Brook and Peter Point Brook due to the debris jams.	
Impact on Future Development:	Future development in the impacted area will be less likely to be flooded.	
Impact on Critical Facilities/Lifelines:	Not applicable	
Impact on Capabilities:	The action adds a second trash rack, increasing the Village's capability to reduce flooding surrounding Thatcher Brook and Peter Point Brook.	
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 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 checked="" 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	
	Buyout homes exposed to flooding	
	Conduct debris clearing after every rainfall event	
Evaluation		
Current problem exists		
Costly		
Limited staffing ability		



Action 2025-GowandaV-04. Undersized Culverts

Lead Agency:	Highway Superintendent		
Supporting Agencies:	Building Code Enforcement, Engineering		
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 checked="" 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 Village are undersized or have been damaged from instances of flooding and the debris caused by severe storms and severe winter winters including the following culverts:</p> <ul style="list-style-type: none"> • Union Street Culvert (Town of Collins, Erie County) • Buffalo Street Culvert (NYSDOT) • Rail Road Bridge Culvert (Cattaraugus County IDA) • Cemetery Hill Culvert (Town of Collins, Erie County) • Chapel Street Bridge Culvert (Cattaraugus County) 		
Description of the Solution:	The Village Engineer and Highway Department will support New York State DOT and the Town of Collins in the lobbying for appropriate upgrades and/or replacements for the culverts that are undersized and contribute to flooding to determine the proper size necessary to provide stormwater capacity.		
Estimated Cost:	TBD after study is complete		
Potential Funding Sources:	FEMA HMA, CHIPS, NYS DOT, Town of Collins		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 4		
Benefits:	Overall flooding will be reduced, which will result in less frequency of road closures and reduced damage occurring to culverts and roadways during severe events. Businesses are likely to remain in place if they are able to remain open, or re-open sooner following a flood.		
Impact on Socially Vulnerable Populations:	Areas that were previously vulnerable to frequency or severe flooding events will be less likely to be impacted by flooding events.		
Impact on Future Development:	Future development in the impacted area will be less likely to be flooded.		
Impact on Critical Facilities/Lifelines:	Transportation routes are more likely to remain open. Evacuation routes will remain intact. Access to health and medical facilities will be maintained, both for healthcare workers and the population who requires treatment for injuries and illness.		
Impact on Capabilities:	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.		
Climate Change Considerations:	Climate change is likely to result in more frequent and severe rainfall events. This action upsizes culvert sizes to meet changing stormwater needs as the result of climate change.		
Mitigation Category	<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-GowandaV-05. Repetitive Loss Properties

Lead Agency:	Code Enforcement		
Supporting Agencies:	Village 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 Village has 11 repetitive loss properties, but other properties may be impacted by flooding as well.		
Description of the Solution:	The Village will conduct outreach to the impacted properties and will provide information on mitigation alternatives. After preferred mitigation measures are identified, the Village 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, Village 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 Village'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-GowandaV-06. Substantial Damage Management Plan

Lead Agency:	Highway Department		
Supporting Agencies:	Code Enforcement, Village 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 type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire		
Description of the Problem:	<p>Officials in NFIP-participating communities are responsible for regulating all development in SFHAs by issuing permits and enforcing local floodplain requirements, including Substantial Damage, for the repairs of damaged buildings. After any disaster event, they must:</p> <ul style="list-style-type: none"> Determine where the damage occurred within the community and if the damaged structures are in an SFHA. Determine what to use for "market value" and cost to repair; uniformly applying regulations will protect against liability and promote equitable administration. Determine if repairing plus improving the damaged structure equals or exceeds 50% of the structure's pre-damage value. Require permits for floodplain development. <p>The Village does not have a Substantial Damage Management Plan in place, nor do they have a formal process in place when conducting substantial damage determinations. The municipality is in need of a formal process and plan to provide a framework for conducting such inspections and determinations.</p>		
Description of the Solution:	<p>The Village will develop a Substantial Damage Management Plan, following the six-step planning process in 2021 Developing a Substantial Damage Management Plan (https://crsresources.org/files/500/developing_subst_damage_mgmt_plan.pdf). This plan will outline responsibilities for Substantial Damage determinations, determining market value, and permit approval processes following a disaster event.</p>		
Estimated Cost:	Low		
Potential Funding Sources:	Village Budget		
Implementation Timeline:	Within 3 years		
Goals Met:	1, 2, 4		
Benefits:	This action will provide a guidance document to determine substantial damage in the Village.		
Impact on Socially Vulnerable Populations:	Socially vulnerable populations may disproportionately be impacted by substantial damages.		
Impact on Future Development:	Not applicable		
Impact on Critical Facilities/Lifelines:	Not applicable		
Impact on Capabilities:	This action will produce substantial damage guidance for Village officials to use.		
Climate Change Considerations:	Climate change is leading to an increase in frequency and intensity of precipitation events, which also increases flooding and may lead to a main failure.		
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
	Rely on state or federal resources following disaster events		Resources may not be available during major widespread events
	Establish MOUs with outside agencies to conduct Substantial Damage Determinations		A plan outlining responsibility is still necessary to prevent missing important requirements



Action 2025-GowandaV-07. Wildfire Education and Outreach

Lead Agency:	Village Board		
Supporting Agencies:	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 Village 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 Village does not currently have hazard mitigation information and outreach on the Village 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 Village events, the Village newsletters, social media, the Village website, and having the materials on display for the public at Village libraries and offices. Outreach materials will be specified with education and information for the wildfire hazard.		
Estimated Cost:	Low		
Potential Funding Sources:	Village Budget		
Implementation Timeline:	1 year		
Goals Met:	1, 2, 3, 4		
Benefits:	This action will improve the public education and outreach capabilities in the Village by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Village.		
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 Village.		
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 Village'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 Village
	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-GowandaV-08. Pandemic Education and Outreach

Lead Agency:	Village Board		
Supporting Agencies:	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 Village 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 Village does not currently have hazard mitigation information and outreach on the Village 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 Village events, the Village newsletters, social media, the Village website, and having the materials on display for the public at Village libraries and offices. Outreach materials will be specified with education and information for the pandemic hazard.		
Estimated Cost:	Low		
Potential Funding Sources:	Village Budget		
Implementation Timeline:	1 year		
Goals Met:	1, 2, 3, 4		
Benefits:	This action will improve the public education and outreach capabilities in the Village by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Village.		
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 Village.		
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 Village'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 Village	
	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-GowandaV-09. Flood Warning System

Lead Agency:	Village Board		
Supporting Agencies:	Cattaraugus County		
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 Village faces significant risk from the flood hazard; however, there is no warning system in place to detect when waters are breaching banks and to notify the public of the impending hazard. Flood waters can cause negative impacts to private and public property, close routes for travel and evacuation, and have the potential to cause health risks due to contaminated waters and debris.		
Description of the Solution:	The Village will evaluate areas that need a flood warning system constructed and construct the system where necessary. The system will place specific emphasis on warnings for water and sewer facilities. The Thatcher Brook Diversion Channel is currently in design phase. The System will also be able to be used to distribute warnings regarding other emergency events.		
Estimated Cost:	Medium		
Potential Funding Sources:	FEMA HMA, NWS, USGS, Village Budget		
Implementation Timeline:	3 years		
Goals Met:	1, 4, 5, 6		
Benefits:	This action will improve the alert and warning capabilities of the Village by being able to alert and notify the public, business owners, and visitors of potential or impending flooding conditions.		
Impact on Socially Vulnerable Populations:	Vulnerable populations who are impacted by flooding conditions would have an earlier warning of impending or possible flooding conditions.		
Impact on Future Development:	Not applicable.		
Impact on Critical Facilities/Lifelines:	Critical facilities and community lifelines which are impacted by flooding conditions would have an earlier warning of impending or possible flooding conditions.		
Impact on Capabilities:	This action would build upon the existing warning system capabilities of the Village by expanding these capabilities to include a flood warning system.		
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. The projection for an increase in heavy rainfall events means there is a heightened chance of flooding 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		Current problem exists
	Rely on the NWS updates		Do not provide real-time information, delay in information could impact the village on responding properly
	Conduct manual readings by emergency personnel		Inaccurate and time consuming



Action 2025-GowandaV-10. Landslide Education and Outreach

Lead Agency:	Village Board		
Supporting Agencies:	Cattaraugus County		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input type="checkbox"/> Flood <input checked="" 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 Village faces risk from landslide 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 Village does not currently have hazard mitigation information and outreach on the Village website.		
Description of the Solution:	Create outreach materials, or utilize those from Cattaraugus County, on landslide risks and methods of mitigation measures. Methods of distribution may include Village events, the Village newsletters, social media, the Village website, and having the materials on display for the public at Village libraries and offices. Outreach materials will be specified with education and information for the landslide hazard.		
Estimated Cost:	Low		
Potential Funding Sources:	Village Budget		
Implementation Timeline:	1 year		
Goals Met:	1, 2, 3, 4		
Benefits:	This action will improve the public education and outreach capabilities in the Village by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the Village.		
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will learn how to prepare for and mitigate the landslide hazard which may impact them in the Village.		
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 landslide 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 Village'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 landslide 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 Village	
	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-GowandaV-11. 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"> Persia 13 		
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