



## 2. COUNTY OF CATTARAUGUS

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

### 2.1 HAZARD MITIGATION PLANNING TEAM

The County of Cattaraugus identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many County departments. The Secretary to Commissioner of Public Works and the NIMS Coordinator 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 2-1 summarizes County officials who participated in the development of the annex and in what capacity. Additional documentation of the County’s planning activities through Planning Partnership meetings is included in Volume I.

Table 2-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Kimberly Merrill, Secretary to Commissioner Address: 8810 Route 242, Jack Ellis Drive, Little Valley, NY 14755 Phone Number: (716) 938-9121 ext. 2480 Email: kamerrill@catco.org	Name/Title: Naomi Gennings, NIMS Coordinator Address: 303 Court St., Little Valley, NY 14755 Phone Number: (716) 938-2212 Email: nagennings@catco.org
<b>National Flood Insurance Program Floodplain Administrator</b>	
NFIP Administration is performed at the jurisdictional level.	
<b>Additional Contributors</b>	
Name/Title: Mark C. Burr, P.E., Director of Engineering Method of Participation: Annex review	
Name/Title: Michael J. Prinino, Deputy Commissioner of Public Works Method of Participation: Annex review	
Name/Title: James Lawrence, Emergency Preparedness Director of the Health Department Method of Participation: Annex review	
Name/Title: Chris Baker, Director of Emergency Services and County Fire Coordinator Method of Participation: Annex review	
Name/Title: Mary O'Leary, Director of Community Services Method of Participation: Annex review	
Name/Title: Kathy Ellis, Commissioner of Public Works Method of Participation: Annex review	



## 2.2 COMMUNITY PROFILE

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Cattaraugus County lies in the Southwestern region of New York State. The county is bordered to the north by Erie and Wyoming Counties, to the east is Allegany County, to the south is the State of Pennsylvania, and to the west is Chautauqua County. The county was formed in 1808 from Genesee County and originally named “Town of Olean.” Cattaraugus County has a total area of 1,324 square miles (including both land and water).

The major river of Cattaraugus County is the Allegheny River, located in the southern portion of the county. To the north, Cattaraugus Creek forms the border between Cattaraugus County and Erie County and flows westerly into Lake Erie. Great Valley Creek and Little Valley Creek drain the central portion of the county into the Allegheny River. Other important waterways within the County include Ischua, Oil, Olean, Tunungwant, Conewango, Little Conewango, Mansfield, and Caneadea Creeks.

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 5.7 percent of the population is 5 years of age or younger, 20.6 percent is 65 years of age or older, 0.5 percent is non-English speaking, 17.1 percent is below the poverty threshold, and 16.7 percent is considered disabled.

## 2.3 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

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Cattaraugus County 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 Cattaraugus County to identify opportunities for integrating mitigation concepts into ongoing County procedures.

### 2.3.1 Planning and Regulatory Capability and Integration

Table 2-2 summarizes the planning and regulatory tools that are available to Cattaraugus County.



Table 2-2. 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
<b>CODES, ORDINANCES, &amp; REGULATIONS</b>				
All codes, ordinances, and regulations are administered at the municipal level.				
<b>PLANNING DOCUMENTS</b>				
<b>General/Comprehensive Plan</b>	Yes	Vision 2025 Comprehensive Plan, Moving Cattaraugus County Forward	County	EDPT
<p>How has or will this be integrated with the HMP and how does this reduce risk?            The plan includes the following goals:</p> <ul style="list-style-type: none"> <li>• Goal 1: Support protecting the farmland, forests, and communities of the County</li> <li>• Goal 2: Promote economic development opportunities</li> <li>• Goal 3: Promote agricultural heritage and economy</li> <li>• Goal 4: Promote tourism and foster local arts and cultural organizations</li> <li>• Goal 5: Support stewardship of the County's wetlands, forests, mineral resources, rivers, and other environmental assets</li> <li>• Goal 6: Revitalize and restore cities, villages, and hamlets</li> <li>• Goal 7: Promote transportation</li> <li>• Goal 8: Promote healthy and safe communities</li> </ul>				
<b>Capital Improvement Plan</b>	Yes	Capital Improvement Plan	County	DPW
<p>How has or will this be integrated with the HMP and how does this reduce risk?            County entities will submit desired capital projects to County Administrator's Office with project titles, descriptions, and anticipated costs. The submitted projects may include those with relevance to hazard mitigation, including stormwater management or making facilities more sustainable, and upgrading infrastructure to meet current design and climate objectives. The DPW also integrates hydraulically deficient bridges and culverts into the long-term capital program strategy.</p>				
<b>Disaster Debris Management Plan</b>	Yes	Disaster Debris Management Plan	County	OES
<p>How has or will this be integrated with the HMP and how does this reduce risk?            The plan establishes procedures and guidelines for managing disaster debris in a coordinated, environmentally responsible, and cost-effective manner.</p>				
<b>Floodplain Management or Watershed Plan</b>	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?            Floodplain management/Watershed plans are managed at the local/municipal level.</p>				
<b>Stormwater Management Plan</b>	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?            Stormwater management plans are managed at the local/municipal level.</p>				
<b>Open Space Plan</b>	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?            Open space plans are managed at the local/municipal level.</p>				
<b>Urban Water Management Plan</b>	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?            Urban water management is administered by the cities of Olean and Salamanca, respectively.</p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Habitat Conservation Plan</b>	Yes	Habitat Management Plan for Allegheny Reservoir Wildlife Management Area	State	NYSDEC
<p>How has or will this be integrated with the HMP and how does this reduce risk?            The purpose of this plan is to provide the overall context of the habitat on the WMA/MUA and identify the target species for management; identify habitat goals for WMA/MUA-specific target species, contemplating juxtaposition of all habitat types to guide the conservation, and management of sensitive or unique species or ecological communities; identify acreage-specific habitat goals for the WMA/MUA to guide management actions; provide specific habitat management prescriptions that incorporate accepted best management practices; establish a forest management plan to meet and maintain acreage goals for various forest successional stages; address management limitations such as access challenges (e.g., topography); and provide the foundation for evaluating the effectiveness of habitat management.</p>				
<b>Economic Development Plan</b>	Yes	Economic Strategic Plan	County	EDPT
<p>How has or will this be integrated with the HMP and how does this reduce risk?            This plan provides a policy direction for economic growth, builds upon County strengths and assets, and identifies strategies, programs, and projects to improve the local economy.</p>				
<b>Community Wildfire Protection Plan</b>	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?            Community wildfire protection plans are administered by local fire companies.</p>				
<b>Community Forest Management Plan</b>	Yes	Cattaraugus Unit Management Plan	State	NYSDEC
<p>How has or will this be integrated with the HMP and how does this reduce risk?            NYSDEC has developed a Cattaraugus Unit Management Plan (UMP) which describes the proposed management activities for these lands. In addition to management objectives, the UMP contains detailed information on natural features, recreational infrastructure, geology, natural and human history, habitats, wildlife, fisheries and much more.</p>				
<b>Transportation Plan</b>	Yes	Coordinated Public Transit-Human Services Transportation Plan	County	County Administrator's Office
<p>How has or will this be integrated with the HMP and how does this reduce risk?            The plan seeks to provide a framework for the coordination of transportation services for aging adults, persons with disabilities, and individuals with economic disadvantages within the planning area.</p>				
<b>Agriculture Plan</b>	Yes	Agricultural and Farmland Protection Plan	County	EDPT
<p>How has or will this be integrated with the HMP and how does this reduce risk?            The plan includes recommendations to address critical structural and industry-wide concerns that impact the long-term viability of agriculture in Cattaraugus County; for improving conditions specific to health and well-being of local agricultural enterprises through training, business planning, network development, mentoring, finance, research and development support, and similar services; and to offer programs and processes that address the land use issues facing both towns and farmers.</p>				
<b>Climate Action/Resilience/Sustainability Plan</b>	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?            The New York State Plan exists as guidance for the County's climate action/resilience/sustainability initiatives.</p>				
<b>Tourism Plan</b>	No	-	-	-
<p>How has or will this be integrated with the HMP and how does this reduce risk?</p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Responsible Person, Department or Agency
<b>Business/ Downtown Development Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Other</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-

**RESPONSE/RECOVERY PLANNING**

<b>Comprehensive Emergency Management Plan</b> 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.	Yes	Comprehensive Emergency Management Plan (CEMP)	County	OES
<b>County Emergency Preparedness Assessment</b> How has or will this be integrated with the HMP and how does this reduce risk? This plan is written by performing an analysis on a county's risk and capabilities using a standardized methodology. Potential response limitations and funding gaps, as well as resource needs, are also discussed. The session concludes with a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) to identify opportunities for future growth and better understand major threats to the county's emergency preparedness operations.	Yes	County Emergency Preparedness Assessment (CEPA)	County	OES
<b>Continuity of Operations Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Substantial Damage Response Plan</b> How has or will this be integrated with the HMP and how does this reduce risk?	No	-	-	-
<b>Threat and Hazard Identification and Risk Assessment</b> How has or will this be integrated with the HMP and how does this reduce risk? The Threat and Hazard Identification and Risk Assessment (THIRA) is a three-step risk assessment process that helps the County understand its risks to natural, technological, and human-caused hazards and what must be done to address those risks.	Yes	Threat & Hazard Identification & Risk Assessment (THIRA)	County	OES
<b>Post-Disaster Recovery Plan</b> How has or will this be integrated with the HMP and how does this reduce risk? The Post-Disaster Recovery Plan located within the County's CEMP. The purpose of this plan is to facilitate pre-disaster planning in a way that guides long-term recovery efforts (five years or more) following a disaster. The plan identifies roles and responsibilities of key people, departments, and agencies; address the need for temporary regulations such as post-disaster building moratoria; address potential impacts to historic resources; address potential impacts to non-conforming uses; and address location and other provisions for temporary housing.	Yes	CEMP	County	OES



	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
<b>Public Health Plan</b>	Yes	Health Department Strategic Plan 2022–2025	County	Health Department

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

The Cattaraugus County Health Department’s (CCHD) Strategic Planning Process began in April 2022 using the resources of the New York State Department of Health NYS Public Health Corp Fellows. As a part of this process, the fellows reviewed the 2018–2021 strategic plan for past successes and failures and discussed what was needed for future success. Both an external assessment, in which county demographic data, economic factors, health outcomes, and community health assessment findings that have the potential to affect the agency and strategies were examined, and an internal assessment of a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis was completed.

<b>Other: Community Needs Assessment and Community Health Improvement Plan</b>	Yes	Community Needs Assessment and Community Health Improvement Plan	County	Health Department
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How has or will this be integrated with the HMP and how does this reduce risk?

The 2022–2024 OGH/BRMC Community Service Plan (CSP) and the CCHD’s Community Health Assessment and Community Health Improvement Plan (CHA-CHIP) were conducted to identify significant health needs as outlined by the New York State Department of Health’s 2022–2024 Prevention Agenda, where applicable. It also provides critical information OGH/BRMC, the CCHD, and others in a position to make a positive impact on the health of the region’s residents. The CSP/CHA-CHIP enables the health department, hospital, and other community partners to strategically establish priorities, develop interventions, and direct resources to improve the health of residents living in the service area.

The CSP/CHA-CHIP includes a detailed examination of priority areas identified in the NYS Prevention Agenda: (1) prevent chronic diseases; (2) promote a healthy and safe environment; (3) promote healthy women, infants and children; (4) promote well-being and prevent mental health and substance use disorders; and (5) prevent communicable diseases. The Prevention Agenda is a six-year effort to make New York the healthiest state. Developed in collaboration with 140 organizations, the plan identifies New York’s most urgent health concerns, and suggests ways local health departments, hospitals, and partners from health, business, education, and community organizations can work together to solve them.

### 2.3.2 Development and Permitting Capability

Table 2-3 summarizes the capabilities of Cattaraugus County to oversee and track development.

Table 2-3. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? <ul style="list-style-type: none"> <li>If you issue development permits, what department is responsible?</li> <li>If you do not issue development permits, what is your process for tracking new development?</li> </ul>	No	The County Planning Board would review and make comments on various permit applications. They do not, however, issue the permits – applications are referred back to the local jurisdiction.
Are permits tracked by hazard area? (For example, floodplain development permits.)	No	If performed, permit tracking by hazard area is handled locally.
Do you have a buildable land inventory? <ul style="list-style-type: none"> <li>If you have a buildable land inventory, please describe</li> </ul>	No	-
Describe the level of buildout in your jurisdiction.	N/A	20 percent. A buildable land analysis is noted in Chapter 3 (County Profile).



### 2.3.3 Administrative and Technical Capability

Table 2-4 summarizes potential staff and personnel resources available to Cattaraugus County and their current responsibilities that contribute to hazard mitigation.

Table 2-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
<b>ADMINISTRATIVE CAPABILITY</b>		
Planning Board	Yes	The Planning Division serves as staff for the County Planning Board, which must act upon referrals from local municipalities sent to the County under Sections 239 l and m of New York State General Municipal Law. The staff makes recommendations to the County Planning Board regarding these referrals. In addition, the staff also makes recommendations on State Environmental Quality Reviews (SEQR).
Zoning Board of Adjustment	No	Local jurisdictional capability
Planning Department	Yes	The County is involved in many inter-municipal and countywide plans and development projects. Work in this area is often performed with partners where the County Planning staff has a defined role representing the County's interest in the project or activity.
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Works to improve all the communities of Cattaraugus County through retention and expansion of employment; encouraging private sector investment; fostering entrepreneurship; and promoting the County as a tourism destination, place to locate a business and as a truly great place to reside and raise a family.
Public Works/Highway, Engineering, Fleet, & Refuse Divisions	Yes	The lion's share of the financial and human resources in the Public Works Department is devoted to the maintenance of the 395 miles of road, 265 bridges, 258 culverts and 1,530 drainage structures under County jurisdiction. There are approximately 170 employees within the Department of Public Works. The Department is comprised of a robust Highway Division as well as an Engineering Division, Fleet Division, Refuse Division, and Weights & Measures.
Construction/Building/Code Enforcement Department	No	Local jurisdictional capacity
Emergency Management/Public Safety Department	Yes	The Office of Emergency Services is made of Emergency Management, Fire Service, and Emergency Medical Services (EMS).
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	Department of Buildings and Grounds oversees the maintenance and repair of county facilities and grounds.



Resources	Available? (Yes/No)	Comment (available staff, responsibilities, support of hazard mitigation)
		Public Works Department is devoted to the maintenance of the 395 miles of road, 265 bridges, 258 culverts and 1,530 drainage structures under County jurisdiction.
Mutual aid agreements	Yes	Public Works, Emergency Service with municipalities
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other: Agricultural and Farmland Protection Board	Yes	Agricultural and Farmland Protection Board (AFPB) is an 11-member board advises the Cattaraugus County Legislature on agricultural issues and is tasked with implementing the Agricultural and Farmland Protection Plan.
<b>TECHNICAL/STAFFING CAPABILITY</b>		
Planners or engineers with knowledge of land development and land management practices	Yes	EDPT/Director
Engineers or professionals trained in building or infrastructure construction practices	Yes	DPW
Planners or engineers with an understanding of natural hazards	Yes	DPW
Staff with expertise or training in benefit/cost analysis	Yes	DPW
Professionals trained in conducting damage assessments	Yes	Risk management/County Attorney's Office
Personnel skilled or trained in GIS and/or Hazus applications	Yes	DPW & Real Property
Staff that work with socially vulnerable populations or underserved communities	Yes	Department of Social Services, One Stop Career Center, Health Department, Department of the Aging, Department of Community Services, Veterans Service Agency, Youth Bureau
Environmental scientists familiar with natural hazards	No	-
Surveyors	Yes	DPW/Land Surveyor
Emergency manager	Yes	Office of Emergency Services
Grant writers	Yes	Department of Economic Development, Planning & Tourism
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

### 2.3.4 Fiscal Capability

Table 2-5 summarizes financial resources available to Cattaraugus County.



Table 2-5. 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	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	Yes
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Yes

### 2.3.5 Education and Outreach Capability

Table 2-6 summarizes the education and outreach resources available to Cattaraugus.

Table 2-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment
Public information officer or communications office	No	-
Personnel skilled or trained in website development	Yes	Information Services
Hazard mitigation information available on your website	Yes	Office of Emergency Services webpage
Social media for hazard mitigation education and outreach	Yes	Facebook, Twitter, Instagram
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	NY-Alert, Code Red, Everbridge
Natural disaster/safety programs in place for schools	Yes	Per NYS Education System, every school must have their own emergency plans.
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Department of Social Services, One Stop Career Center, Health Department, Department of the Aging, Department of Community Services, Veterans Service Agency, Youth Bureau
Public outreach mechanisms / programs to inform citizens on natural hazards, risk, and ways to protect themselves during such events	Yes	Facebook, Everbridge, NY Alert, IPAWS, Press Release



### 2.3.6 Community Classifications

Table 2-7 summarizes classifications for community programs available to Cattaraugus County.

Table 2-7. 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	Yes	County	August 2019
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

### 2.3.7 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 2-8 summarizes the adaptive capacity for each identified hazard of concern and the County’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 2-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Flood	Moderate
Landslide	Moderate
Pandemic	Moderate
Severe Storm	Moderate
Severe Winter Weather	Moderate
Utility Interruption	Moderate
Wildfire	Moderate



## 2.4 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 2-1 is responsible for maintaining this information.

### 2.4.1 NFIP Statistics

Table 2-9 summarizes the NFIP policy and claim statistics for Cattaraugus County.

Table 2-9. Cattaraugus NFIP Summary of Policy and Claim Statistics

# Policies	419
# Claims (Losses)	858
Total Loss Payments	\$6,595,974.77
# Repetitive Loss Properties (NFIP definition)	82
# Repetitive Loss Properties (FMA definition)	2
# 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

### 2.4.2 Flood Vulnerability Summary

Table 2-10 provides a summary of the NFIP program in Cattaraugus County.

Table 2-10. NFIP Summary

NFIP Topic	Comments
Floodplain Administration is conducted at the local municipal level.	

## 2.5 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 2-11 through Table 2-13.



Table 2-11. 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
<b>2019</b>				
Total Permits	44	4	63	116
Permits within SFHA	1	0	0	1
<b>2020</b>				
Total Permits	43	1	71	122
Permits within SFHA	0	0	2	2
<b>2021</b>				
Total Permits	50	4	72	133
Permits within SFHA	1	0	0	1
<b>2022</b>				
Total Permits	64	5	47	129
Permits within SFHA	1	1	1	3
<b>2023</b>				
Total Permits	62	2	60	138
Permits within SFHA	1	0	0	1
<b>2024</b>				
Total Permits	21	0	1	22
Permits within SFHA	0	0	0	0

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

Note: Refer to Volume II, Chapters 3-45 for building permits issued in each local jurisdiction.

Due to old filing systems, specific permitting types are unavailable in some jurisdictions and only total permits issued were known.

Table 2-12. 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
Invenergy	Commercial	1	407 Zimmer Road	None	Office & Storage
Edelweiss Farms	Agriculture	4	10826 Osmun Road	None	Farming
Invenergy Windmills	Commercial	27	Location in Freedom	None	Wind Energy
Great Lakes Cheese	Manufacturing	1	1958 Integrity Way, Franklinville, NY 14737	None	To be completed 2025
Vollentine Culverts	Infrastructure	3	Vollentine Road	Flood	Installed 1 – 6-foot culvert, 2 – 7-foot culverts

Note: Refer to Volume II, Chapters 3-45 for recent major development and infrastructure in each local jurisdiction.



Table 2-13. 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
Schwab Transport	Commercial	1	10064 Pigeon Hill Road	None	Office/workshop
Fox Road Culvert	Infrastructure	1	Fox Road	Flood	Need to install 1 6-foot culvert
Corbett Hill Road Ditch Bank	Infrastructure	1	Corbett Hill Road	Flood/Erosion	Need to install rip rap on ditch banks
Solar Farm	Industrial	2 farms	Broadway Road	None	2 solar farms with a combined 33 acres. Not permitted yet.
North Otto Road	Storm sewer Drainage	1	CR12 going North 900 feet	Poor drainage, water crossing road, freezes in winter	Cattaraugus County Road and job
Wind Farm	Industrial	1	Unknown	None	Leases being acquired but construction not started
Solar Farms	Industrial	3	Unknown	None	Application process begun but construction not started

Note: Refer to Volume II, Chapters 3-45 for anticipated major development and infrastructure in each local jurisdiction.

## 2.6 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 Cattaraugus County’s risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

### 2.6.1 Hazard Area

The hazard profiles in Volume 1, Chapter 6 through Chapter 13 provide detailed information regarding each plan participant’s vulnerability to the identified hazards. Chapter 4 (Methodology) and Chapter 14 (Hazard Ranking) provide detailed summaries for the County of Cattaraugus’s risk assessment results and data used to determine the hazard ranking discussed later in this section.

Hazard area extent and location maps provided in the jurisdictional annexes illustrate the probable areas impacted within the jurisdiction based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps were generated only for those hazards that can be identified clearly using mapping techniques and technologies and for which the County of Cattaraugus has significant exposure. The maps also show the location of potential new development, where available.



## 2.6.2 Hazard Event History

The history of natural and non-natural hazard events in Cattaraugus County is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 2-14 provides details on loss and damage in Cattaraugus County during hazard events since the last hazard mitigation plan update.

Table 2-14. Hazard Event History in Cattaraugus County

Dates of Event	Event Type (Disaster Declaration)	County Designated?	Summary of Event	Summary of Damage and Losses in Cattaraugus County
October 31- November 1, 2019	DR-4472	No	Severe Storms, Straight-Line Winds, and Flooding	No damages or losses incurred to the County.
March 13, 2020	EM-3434 DR-4480	Yes	COVID-19 Pandemic	\$4,869,444.51 was submitted to FEMA and \$4,145,841.72 was actually approved. We are submitting about \$200,000 for CAT Z
January 12, 2020	High Wind	N/A	High wind	No damages or losses incurred to the County.
July 16, 2020	Thunderstorm Wind	N/A	Trees and wires were reported down in Gowanda.	No damages or losses incurred to the County.
July 19, 2020	Thunderstorm Wind	N/A	Multiple reports of trees down around Gowanda, Ashville Bay, Napoli and Portville.	No damages or losses incurred to the County.
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 incurred to the County.
September 7, 2020	Thunderstorm Wind	N/A	Property damage in Olean.	No damages or losses incurred to the County.
November 15, 2020	High Wind	N/A	Property damage throughout Cattaraugus County.	No damages or losses incurred to the County.
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 incurred to the County.
December 11, 2021	High Wind	N/A	Dozens of reports of trees and powerlines down were received.	No damages or losses incurred to the County.
March 6, 2022	High Wind	N/A	High wind	No damages or losses incurred to the County.
July 24, 2022	Thunderstorm Wind	N/A	Trees and powerlines reported down in East Otto, Randolph, and South Dayton.	No damages or losses incurred to the County.
November 20, 2022	EM-3589	Yes	Severe Winter Storm and Snowstorm	Additional snow removal needs.

EM = Emergency Declaration (FEMA)  
 FEMA = Federal Emergency Management Agency  
 DR = Major Disaster Declaration (FEMA)



N/A = Not applicable

### 2.6.3 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 Cattaraugus County.

#### 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. Cattaraugus 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 County indicated the following:

- The Dam and Levee Failure hazard was decreased from ‘Medium’ to ‘Low’ as all County dams are maintained and inspected on an annual basis by NRCS, NYS DEC, and Cattaraugus County Soil & Water Conservation District. There have been no areas of concern regarding dam or levee failure based on these inspections.
- The Wildfire hazard was decreased from ‘Medium’ to ‘Low’ as there is ample adaptive capacity within Cattaraugus County fire districts to address wildfire hazards.

Table 2-15 shows Cattaraugus’s final hazard rankings for identified hazards of concern. Mitigation action development uses the ranking to target hazards with the highest risk.

Table 2-15. Hazard Ranking

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

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 2-16 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.



Table 2-16. 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		
Refer to Volume II, Chapters 3-45 for critical facilities across the County.					

Source: Cattaraugus County 2024

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in Cattaraugus County:

- Conewango Creek Site 1 Dam (Town of Randolph)
- Conewango Creek Site 16 Dam (Town of Napoli)
- Conewango Creek Site 16a Dam (Town of Conewango)
- Conewango Creek Site 19 Dam (Town of Randolph)
- Harwood Lake Dam (Town of Farmersville)
- Holimont Upper Reservoir Dam (Town of Mansfield)
- Ischua Creek Watershed Dam #1 (Town of Machias)
- Ischua Creek Watershed Dam #2 (Town of Farmersville)
- Ischua Creek Watershed Dam #4 (Town of Franklinville)
- Ischua Creek Watershed Dam #5 (Town of Lyndon)
- Ischua Creek Watershed Dam #6a (Town of Franklinville)
- Tannenbaum Reservoir Dam (Town of Ellicottville)

### 2.6.4 Identified Issues

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

- 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 the County 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:
  - CR05/Mosher Hollow Road (Town of New Albion, Town of Leon – “Kendall’s Corners”)
  - CR05/Mosher Hollow Road (Town of Dayton – near intersection of State Route 353 & CR05)
  - CR26/Gile Hollow Road (Town of Hinsdale)
  - CR27/Haskell Road (Town of Portville)
  - CR44/Flat Iron Road (Town of Conewango)
  - CR60/West River Road (Town of Allegany)
  - CR69/Cadiz Road (Town of Franklinville)



- 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 County are undersized or have been damaged from instances of flooding and the debris caused by severe storms and severe winter winters including culverts.
- There are 12 high hazard potential dams in the County which have the potential to impact the people, property, infrastructure, and environment nearby. These dams, listed below, are located in nine of the County's local jurisdictions. In addition, there are two high hazard potential dams located outside of Cattaraugus County (Cuba Lake Dam in neighboring Allegany County and Springville Dam in Erie County) which have the potential to impact its local jurisdictions.
  - Conewango Creek Site 1 Dam (Town of Randolph)
  - Conewango Creek Site 16 Dam (Town of Napoli)
  - Conewango Creek Site 16a Dam (Town of Conewango)
  - Conewango Creek Site 19 Dam (Town of Randolph)
  - Harwood Lake Dam (Town of Farmersville)
  - Holimont Upper Reservoir Dam (Town of Mansfield)
  - Ischua Creek Watershed Dam #1 (Town of Machias)
  - Ischua Creek Watershed Dam #2 (Town of Farmersville)
  - Ischua Creek Watershed Dam #4 (Town of Franklinville)
  - Ischua Creek Watershed Dam #5 (Town of Lyndon)
  - Ischua Creek Watershed Dam #6a (Town of Franklinville)
  - Tannenbaum Reservoir Dam (Town of Ellicottville)
- In addition to the 12 high hazard potential dams within the County, there are 14 intermediate hazard dams, which have the potential to impact the people, property, infrastructure, and environment nearby. These dams, listed below, are located in ten of the County's local jurisdictions. In addition, there are two high hazard potential dams located outside of Cattaraugus County (Cuba Lake Spillway Dam in neighboring Allegany County and Conewango Creek Site 6 Dam in Chautauqua County) which have the potential to impact its local jurisdictions.
  - Lime Lake Outlet Dam (Town of Machias)
  - Rainbow Lake Dam (Town of East Otto)
  - Quaker Run Dam (Town of Coldspring)
  - Cabic Pond Dam (Town of New Albion)
  - Efner Davis Pond Dam (Town of Machias)
  - Conewango Creek Site 13 Dam (Town of New Albion)
  - Ischua Creek Watershed Dam #3 (Town of Farmersville)
  - William O Nannen Pond Dam (Village of Ellicottville)
  - Camp Chautauqua Pond Dam (Town of Randolph)
  - Sunset Saddle Dam (Town of Ellicottville)
  - Red House Lake Dam (Town of Red House)
  - Rotary Lake Dam (Town of Freedom)



- Edgar Ploetz Recreational Pond Dam (Town of Ellicottville)
- Richard Weishan Pond Dam (Town of East Otto)
- Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. There are 82 repetitive loss properties across the County, but other properties may be impacted by flooding. The County has identified the following locations that would be good candidates for targeting mitigation:
  - East Otto: Hammond Hill, 13 homes/cottages
  - Ashford Triangle: three (3) houses total
  - Little Valley: one (1) home
  - Coldspring: one (1) home
- Properties located within a triangular parcel of land, known as the Ashford Triangle, bordered by White Street, County Road No. 53, and County Road No. 32 in the Town of Ashford, NY, Cattaraugus County have experienced repetitive damage due to flood events (Tax parcel nos. 29.011-2-28.2, 29.011-2-28.1, and 29.011-2-30).
- Landslide events are often driven by hazards such as heavy rain events, flooding, heavy snowmelt, and wildfires. Landslides can destroy the natural and built environments, causing detriment to the structures in its path. The County does not have an inventory of roads which may be impacted by landslides.
- Power and communications outages put the public and critical facilities at risk. OES and Sheriff's office have worked to improve communications throughout the County, including radio system updates, integration of digital communication technology, and coordination with municipalities to incorporate early warning systems. Additionally, backup generators were installed or upgraded at all remote communications sites.
- The County has a comprehensive education and outreach program which addresses all identified hazards of concern; however, the information should be updated to include mitigation strategies to reduce long-term risk to the general public and properties. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.
- Development in the floodplain can increase risk to property and life. Flooding events have resulted in damages to residential and commercial properties. Restricting development in floodplains reduces the risk of future damages.
- The County 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. Flash floods are a rapid rise of water along a stream or low-lying urban area. They occur within a few minutes or hours of excessive rainfall, a dam or levee failure, or a sudden release of water held by an ice jam. With such limited time for response, flood gauging is necessary for adequate warning.
- Randolph Highway Barn, Allegany Transfer Station, and Portville Transfer Station are located in the special flood hazard area and may be vulnerable to flooding. Critical facilities must be protected to the 0.2% annual chance flood level.
- Critical facilities require backup power to ensure continuity of operations. The Highway Barns require backup power: Markhams (100 kw); Randolph (100 kw); West Valley (100 kw), currently have unsustainable, portable generators, but require automatic, fixed units in order to produce energy supply to ensure continuity of operations in the event of a utility or power failure; the Board of Elections facility (207 Rock City Street, Little Valley) does not have any current source of back-up power. High winds associated



with severe storms and severe winter storms are known to cause utility failures, which would impact the continuity of operations at both critical facilities. Rising water levels from floods could impact these facilities; back-up generators would permit any influx of water to be removed from the facilities via pumping systems.

- A dam and/or levee failure is considered a low frequency event, meaning the likelihood of a failure is low; however, should a failure occur, the consequences could be high. Because of the low probability of occurrence, training for such events is uncommon and often not conducted. Emergency drills for low frequency events such as dam and/or levee failure must occur so first responders are aware of the procedures to follow and how to mitigate any identified gaps in their training. Conducting these trainings in collaboration with dam and/or levee owners can also make the owners aware of any vulnerabilities their infrastructure may have.
- FIRMs are outdated and may not accurately display flood risk. Inaccurate flood maps can misinform the public of actual flood risk and may prevent interested homeowners from receiving or applying for flood insurance. Correctly displaying the areas at risk to the flood hazard is not only critical to visually show the risk, but to support grant applications for funding to mitigate the flood risk at identified locations within or around the floodplain.
- Local jurisdictional Comprehensive Emergency Management Plans (CEMPs) may be outdated and do not incorporate hazard mitigation principles. Hazard mitigation principles need to be integrated into the CEMP. A CEMP establishes the overall authority, roles, and functions performed during incidents. Incorporating hazard mitigation principles into a CEMP ensures hazard risk is identified.
- Scour on several County bridges has developed due to erosion. This erosion may have occurred 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 have caused flooding conditions to further erode the structure of the bridge. The following bridges should be evaluated to determine useability and to identify potential solutions:
  - Conewango 06
  - Conewango 14
  - Ellicottville 49
  - East Otto 12
  - East Otto 23
  - Farmersville 05
  - Farmersville 25
  - Freedom 25
  - Leon 36
  - Little Valley 06
  - Lyndon 03
  - Mansfield 12
  - Mansfield 37
  - Mansfield 51
  - Mansfield 62
  - Napoli 08
  - Otto 03
  - Otto 04



- South Valley 04
- South Valley 05
- South Valley 08
- Yorkshire 20
- Following emergency events, individuals may be unable to stay in their places of residence due to storm damages. Flooding from dam and levee failures can cause residences to become uninhabitable; wildfires and landslides can compromise the integrity of the structure; and severe storms and severe winter storms can lead to utility failures. Local jurisdictions need to identify locations for the placement of temporary sheltering.
- Seneca Nation of Indians has territorial lands within Cattaraugus County, therefore hazards within Cattaraugus County, including all the hazards identified within this plan, may also impact Tribal lands. Increasing communications across entities can reduce hazard risk on shared lands.
- There are 40 dams and seven federally accredited levee systems within Cattaraugus County. Federal accreditation of floodwater retention structures shows the dams and levees have met and continue to meet the minimum regulatory standards set by the regulatory agencies. The accreditation of these structures show they are able to support efforts in the mitigation of flood risk.

## 2.7 MITIGATION STRATEGY AND PRIORITIZATION

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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.

### 2.7.1 Past Mitigation Action Status

Table 2-17 indicates progress on the County'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.

### 2.7.2 Additional Mitigation Efforts

In addition to the mitigation actions completed in Table 2-17, Cattaraugus identified the following mitigation efforts completed since the last HMP:

- County Road No. 32 (West Valley Road) Ashford Slide Slope Failure – HMGP 4567-0015 Geotechnical engineering study

Since the adoption of the County's first HMP, Cattaraugus has made significant mitigation progress in the following areas:

- Various culvert replacement and hydraulic upsizing throughout the County have been accomplished and further planned for future action. To date, an HMGP acquisition project has been successfully complete, wherein two (2) flood-prone properties were removed from the 100-year flood plain (HMGP 4397-0005). Additionally, two (2) hazard mitigation projects are approved and in progress: HMGP 4480-0053 (New Albion Lake Culvert Replacement) and HMGP 4480-0067 (New Albion Culvert No. 27).



- The County has made progress identifying poor soils and landslides within the Cattaraugus Creek basin, including areas within the Towns of Perrysburg, Persia, Otto, East Otto, Ashford, Yorkshire, and New Albion. It is the intent to identify areas of poor soils and provide additional guidance regarding development within these areas.



Table 2-17. 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-Cattaraugus County-001	Develop emergency communications plans and emergency power backup plans.	All Hazards	County OES	<p>Problem: Power and communications outages put the public and critical facilities at risk.</p> <p>Solution: Continue to work with critical facilities to develop emergency communications plans and emergency power backup plans. The County will also work to update potential emergency sheltering options.</p>	<p>1. In Progress</p> <p>2. OES and Sheriff's office continue to improve communications throughout the County, to include radio system updates, integration of digital communication technology, and coordination with municipalities to incorporate early warning systems. Additionally, backup generators were installed or upgraded at all remote communications sites (Sheriff's Department).</p>	<p>1. Include</p> <p>2. Not applicable</p> <p>3. Not applicable</p>
2020-Cattaraugus County-002	Continuous Public Education	All Hazards	County EDPT	<p>Problem: Need to enhance public education and outreach</p> <p>Solution: Continuous Public Education – This will be done via pamphlets and website resources and include such information as: evacuation centers, supplies to have on hand, listing of emergency telephone numbers, storm drain maintenance procedures.</p>	<p>1. In Progress</p> <p>2. OES distributes information at the Cattaraugus County fair. EDPT aids in posting information on the County website. Information needs to be updated.</p>	<p>1. Include</p> <p>2. Not applicable</p> <p>3. Not applicable</p>
2020-Cattaraugus County-003	Smart Growth	Flood	County EDPT	<p>Problem: Development in the floodplain can increase risk to property and life.</p>	<p>1. In Progress</p> <p>2. New County/community flood maps are in the</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.
				Solution: Educate municipalities on “Smart Growth” practices in the floodplains.	process of being developed by FEMA Region 2	
2020-Cattaraugus County-004	Evaluate areas that need a flood warning system constructed.	Flood	County OES	Problem: Flash flooding, limited time; flood gauging is necessary for adequate warning.  Solution: Evaluate areas that need a flood warning system constructed. Pursue development of a flood warning system.	1. In progress 2. Additional rain gauges have been added to the Allegheny River at Red House and to Thatcher Brook	1. Include 2. Not applicable 3. Not applicable
2020-Cattaraugus County-005	Replace and Upsize Undersized Culverts	Flood, Severe Storm	County DPW	Problem: The county has identified numerous culverts that require upsizing. Undersized culverts are prone to damages and contribute to flooding  Solution: The county will work to upsize the identified culverts during replacement.	1. In Progress 2. Identification of culverts is continuing, with plans to upsize.	1. Include 2. Not applicable 3. Not applicable
2020-Cattaraugus County-006	Implement/ Encourage training for Code Enforcement Officers.	Flood	County DPW	Problem: Officials responsible for floodplain management would benefit greatly from training opportunities. Very little zoning precludes homeowners from building in floodplains, leading to problems later.  Solution: Obtain/host specialist training and certification for floodplain managers.	1. Discontinue 2. The County does not have oversight nor any coordination authority with regard to local code enforcement or code enforcement programs. This educational enrichment is needed in this area but should be transferred to the New York State Department of State, Building Standards and Codes.	1. Discontinue 2. Not applicable 3. The County does not have oversight nor any coordination authority with regard to local code enforcement or code enforcement programs. This educational enrichment is needed in this area but should be transferred to the New York State Department of State, Building Standards and Codes.



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-Cattaraugus County-007	Residential Property Flood Mitigation.	Flood	County DPW Mun. NFIP Flood-plain 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 county has identified the following locations that would be good candidates for targeting mitigation.:</p> <ul style="list-style-type: none"> <li>• East Otto: Hammond Hill, 13 homes/cottages – flood</li> <li>• Ashford Triangle: two (2) locations, five (5) houses total – flood</li> <li>• Little Valley: one (1) home – flood</li> <li>• Coldspring: one (1) home – County</li> </ul> <p>Solution: The county will work with towns to conduct outreach to flood-prone property owners, including RL/SRL property owners and provide information regarding mitigation alternatives. After preferred mitigation measures are identified, the county will collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/ purchase/ moving/ elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	<p>1. In progress/completed 2. East Otto – in progress Ashford Triangle – Cattaraugus County Soil &amp; Water Conservation District will be researching grant opportunities in coordination with DPW to engage a consultant for engineering feasibility study for solutions to this highly flood-prone, long-standing vulnerable area. This is related specifically to the triangle vicinity. Two (2) of the five (5) properties in this problem area were acquired and structures removed as part of HMGP 4397-0005. Little Valley – ongoing Coldspring – ongoing</p>	<p>1. Include 2. Please see adjusted wording to Ashford triangle 3. Not applicable</p>
2020-Cattaraugus County-008	Landslide Mitigation	Landslide	County DPW	<p>Problem: The county has identified numerous homes that would benefit from buyout due to landslide risk.</p> <ul style="list-style-type: none"> <li>• Village of Cattaraugus: 20 homes – landslide</li> <li>• Yorkshire: two (2) homes – landslide</li> </ul>	<p>1. Discontinue 2. These residential areas/identification of these properties should be referred to local municipal jurisdictional oversight.</p>	<p>1. Discontinue 2. Not applicable 3. These residential areas/identification of these properties should be referred to local municipal</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.
				Solution: The county will work with local towns and villages to identify property owners that may be interested in buyout due to landslide risk and assist with grant applications.	The County cannot assist in projects not impacting County infrastructure; however, would support municipal efforts to mitigate these hazards. That said, the County should not be the origin point for municipalities' applications.	jurisdictional oversight. The County cannot assist in projects not impacting County infrastructure; however, would support municipal efforts to mitigate these hazards. That said, the County should not be the origin point for municipalities' applications.
2020-Cattaraugus County-009	Critical Facility Flood Protection	Flood	County DPW	<p>Problem: Randolph Highway Barn, Allegany Transfer Station, and Portville Transfer Station are exposed to flooding.</p> <p>Solution: The County will facilitate a feasibility assessment to determine the most appropriate mitigation action to protect critical facilities to the 500-year flood level. Options include:</p> <ul style="list-style-type: none"> <li>• Elevation of facility</li> <li>• Flood-proofing of facility</li> <li>• Mobile flood barriers</li> </ul> <p>Once the most cost-effective option is identified, the county will carry out that option.</p>	<p>1. In progress</p> <p>2. Feasibility study in the process of beginning.</p>	<p>1. Include</p> <p>2. Add fourth option to be considered/studied, under "mobile flood barriers": add "relocation."</p> <p>3. Not applicable</p>
2020-Cattaraugus County-010	Highway Barns Backup Power	Utility Failure	County DPW	<p>Problem: Backup power sources are necessary to maintain critical services for critical facilities. The following Highway Barns require backup power: Markhams (100 kw); Randolph (100 kw); West Valley (100 kw).</p> <p>Solution: The County will purchase and install the backup power generators and necessary</p>	<p>1. In progress</p> <p>2. Financial constraints</p>	<p>1. In progress</p> <p>2. Markhams, Randolph, and West Valley do have generators, but they are portable. They need to be upgraded to automatic, fixed units.</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.
				electrical components at the identified facilities.		
2020-Cattaraugus County-011	Investigate a Tree Maintenance program to identify susceptible trees.	Severe Storm, Severe Winter Storm, Ice Storm, Utility Interruption	County DPW	<p>Problem: The County does not have a tree trimming program in place. It is unknown the safety of trees throughout the county. During wind events or heavy snow, falling tree branches can damage utilities and private property.</p> <p>Solution: The County will develop a tree trimming maintenance program. The program will include conducting tree inventories and working with utility companies to determine which trees may pose a threat in the event of a storm. Once identified, the County will perform or hire a contractor to perform needed work to remove or maintain high-risk trees.</p>	<p>1. Discontinue</p> <p>2. The County addresses routine tree maintenance as part of a robust annual Highway maintenance program. This is an action that does not need to be uniquely identified as the work is encumbered in DPW's regular activities.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. The County addresses routine tree maintenance as part of a robust annual Highway maintenance program. This is an action that does not need to be uniquely identified as the work is encumbered in DPW's regular activities.</p>
2020-Cattaraugus County-012	Develop educational training for Municipal Code Enforcement Officers.	All Hazards	County DPW	<p>Problem: There is a lack of training regarding incorporation of hazard mitigation concepts.</p> <p>Solution: The County will conduct training for Municipal Code Enforcement Officers and identify trainings available from state and private organizations.</p>	<p>1. Discontinue</p> <p>2. The County does not have oversight nor any coordination authority with regard to local code enforcement or code enforcement programs. This educational enrichment is needed in this area but should be transferred to the New York State Department of State, Building Standards and Codes.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. The County does not have oversight nor any coordination authority with regard to local code enforcement or code enforcement programs. This educational enrichment is needed in this area but should be transferred to the New York State Department of State, Building Standards and Codes.</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-Cattaraugus County-013	Stream Clearing	Flood, Severe Storm	County DPW Municipality/Private	<p>Problem: Streams that clog with debris can contribute to flooding.</p> <p>Solution: The county will conduct stream clearing and provide assistance to local municipalities to maintain local waterways.</p>	<ol style="list-style-type: none"> <li>1. Discontinue</li> <li>2. The County addresses routine streambank and debris maintenance as part of a robust annual Highway maintenance program. This is an action that does not need to be uniquely identified as the work is encumbered in DPW's regular activities. Additionally, the County regularly engages in shared services with all municipal jurisdictions throughout the year.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discontinue</li> <li>2. Not applicable</li> <li>3. The County addresses routine streambank and debris maintenance as part of a robust annual Highway maintenance program. This is an action that does not need to be uniquely identified as the work is encumbered in DPW's regular activities. Additionally, the County regularly engages in shared services with all municipal jurisdictions throughout the year.</li> </ol>
2020-Cattaraugus County-014	Conduct emergency drills.	All Hazards	County OES	<p>Problem: Emergency drills need to be conducted, specifically for low frequency events such as dam failure.</p> <p>Solution: The County will conduct emergency drills.</p>	<ol style="list-style-type: none"> <li>1. In progress</li> <li>2. Emergency services and the Department of Public Works continue to participate in drills for dam failure</li> </ol>	<ol style="list-style-type: none"> <li>1. Include</li> <li>2. Not applicable</li> <li>3. Not applicable</li> </ol>
2020-Cattaraugus County-015	Protect County Dams to the 500-year Flood Level	Flood	County DPW	<p>Problem: Numerous dams are located in Cattaraugus County. Ischua Creek Watershed Dam #1, Ischua Creek Watershed Dam #4, Ischua Creek Watershed Dam #6a, Point Peter Dam, Cabic Pond Dam, and Conewango Creek Site 19 Dam are identified as being located in the Special Flood Hazard Area.</p> <p>Solution: The county will contact the facility managers of privately owned dams and</p>	<ol style="list-style-type: none"> <li>1. Discontinue</li> <li>2. The County already has a dam safety program through NRCS. All dams are regularly inspected per NYSDEC standard, as well. Protection elements are identified through routine inspection and actions taken as needed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discontinue</li> <li>2. Not applicable</li> <li>3. The County already has a dam safety program through NRCS. All dams are regularly inspected per NYSDEC standard, as well. Protection elements are identified through routine inspection and actions taken as needed.</li> </ol>



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.
				discuss options for protecting the dams to the 500-year flood level. For county owned dams, the County DPW will survey the dams to determine what protections are necessary and carry out the necessary upgrades.		
2020-Cattaraugus County-016	Countywide FIRM Update	Flood	County DPW, Flood-plain Administrators, FEMA	Problem: Best available flood mapping is needed. Solution: The county will work with FEMA to update flood hazard mapping	1. In progress 2. FEMA Region 2 continues to update FIRM maps for the County (including digital access development)	1. Include 2. Not applicable 3. Not applicable
2020-Cattaraugus County-017	Incorporate disaster mitigation into comprehensive plans	All Hazards	County EDPT and local municipal agencies	Problem: Comprehensive plans need to incorporate disaster mitigation Solution: Ensure that local comprehensive plans incorporate disaster mitigation techniques through a courtesy review of all draft plans by EDPT (County).	1. In progress 2. OES continues to work with municipalities to update their respective comprehensive plans	1. Include 2. Not applicable 3. Not applicable
2020-Cattaraugus County-018	Identify and monitor bridges for scouring	Flood	County DPW	Problem: Scouring of bridges can result in bridge failure. Solution: The County will identify and monitor bridges for scouring and work to identify funding sources to support mitigation to control scouring.	1. In progress 2. Funding constraints	1. Include 2. Not applicable 3. Not applicable
2020-Cattaraugus County-019	Identification of Temporary and Permanent Housing Locations	All Hazards	Administration	Problem: Municipalities in the county need to identify locations for the placement of temporary housing and permanent housing. Solution: The county will work with local municipalities to identify regional locations for temporary and permanent housing.	1. In progress 2. County and jurisdictional priorities focused elsewhere.	1. Include 2. Alter to temporary sheltering 3. Not applicable



Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Action Review 1. Status (In Progress, Ongoing Capability, No Progress, Complete) 2. Provide a narrative to describe progress or obstacles that have prevented implementation	Next Steps 1. Project to be included in the 2025 HMP or Discontinue 2. If including action in the 2025 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
2020-Cattaraugus County-020	NFIP Technical Assistance	Flood	County DPW	<p>Problem: Administration of municipal flood damage prevention/floodplain management programs across the county may not sufficiently address flood risk and NFIP compliance requirements.</p> <p>Solution: County staff will be made available to review each municipality's floodplain administration regulations, permitting practices, compliance history, etc. and work with municipal FPAs to identify enhancements that can be made to ensure continued municipal compliance with the NFIP.</p>	<ol style="list-style-type: none"> <li>1. Discontinue</li> <li>2. The County does not have oversight nor any coordination authority with regard to municipal flood damage prevention/floodplain management programs.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discontinue</li> <li>2. Not applicable</li> <li>3. The County does not have oversight nor any coordination authority with regard to municipal flood damage prevention/floodplain management programs.</li> </ol>
2020-Cattaraugus County-021	Board of Elections Backup Power	Utility Failure	County DPW	<p>Problem: Backup power sources are necessary to maintain critical services for critical facilities. The Board of Elections facility at 207 Rock City Street in Little Valley requires backup power.</p> <p>Solution: The County will purchase and install a backup power generator and necessary electrical components at the Board of Elections facility.</p>	<ol style="list-style-type: none"> <li>1. No Progress</li> <li>2. Financial constraints</li> </ol>	<ol style="list-style-type: none"> <li>1. Include</li> <li>2. Not applicable</li> <li>3. Not applicable</li> </ol>
2020-Cattaraugus County-022	Ashford Triangle Acquisition Project	Flooding; Severe Storm; Utility Interruption	DPW	<p>Problem: Properties located within a triangular parcel of land bordered by White Street, County Road No. 53, and County Road No. 32 in the Town of Ashford, NY, Cattaraugus County have experienced repetitive damage due to flood events (Tax parcel nos. 29.011-2-28.2, 29.011-2-28.1, and 29.011-2-30).</p>	<ol style="list-style-type: none"> <li>1. No Progress</li> <li>2. There seems to be a lack of interest from the property owners involved regarding voluntary acquisition of their residential parcels. However, Cattaraugus County Soil &amp; Water</li> </ol>	<ol style="list-style-type: none"> <li>1. Include</li> <li>2. Not applicable</li> <li>3. Not applicable</li> </ol>



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.
				Solution: Acquire the three (3) residences, demolish the existing structures and turn into green space.	Conservation District and DPW will coordinate efforts to solicit grant funding for a feasibility study to better assess mitigation strategies in this area.	
2020-Cattaraugus County-023	Ashford Property Acquisition Project	Flooding; Severe Storm; Utility Interruption	DPW	<p>Problem: Properties located off of County Road No. 32 in the Town of Ashford, NY, Cattaraugus County have experienced repetitive damage due to flood events (Tax parcel nos. 29.002-1-26.2 &amp; 29.011-2-21).</p> <p>Solution: Acquire the two (2) residences, demolish the existing structures and turn into green space.</p>	<p>1. Complete</p> <p>2. Project complete with funding through HMGP 4397-0005.</p>	<p>1. Discontinue</p> <p>2. Not applicable</p> <p>3. Project complete with funding through HMGP 4397-0005.</p>



### 2.7.3 Proposed Hazard Mitigation Actions for the HMP Update

Cattaraugus County 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 Cattaraugus County 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 County priorities.

Table 2-18 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 2-19 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.



Table 2-18. Analysis of Mitigation Actions by Hazard and Category

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

- Local Plans and Regulations (LPR)*—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP)*—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct structures to reduce the impact of hazards.
- Natural Systems Protection (NSP)*—These are actions that minimize damage and losses and preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP)*—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities
- Preventative Measures (PR)*—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- Property Protection (PP)*—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI)*—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- Natural Resource Protection (NR)*—Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- Structural Flood Control Projects (SP)*—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- Emergency Services (ES)*—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 2-19. 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-CattaraugusCo-01	Floodprone Roads	1	1	1	1	1	0	1	1	1	1	1	1	1	0	12	High
2025-CattaraugusCo-02	Undersized Culverts	1	1	1	1	1	0	1	0	1	1	1	1	1	0	11	High
2025-CattaraugusCo-03	High Hazard Potential Dams	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-CattaraugusCo-04	Intermediate Hazard Potential Dams	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-CattaraugusCo-05	Repetitive Loss Properties	1	1	1	1	1	0	1	1	1	0	1	1	0	1	11	High
2025-CattaraugusCo-06	Ashford Triangle Flood Mitigation	1	1	1	1	1	0	1	1	1	0	1	1	0	1	11	High
2025-CattaraugusCo-07	Landslide Prone Roads	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-CattaraugusCo-08	Emergency Planning	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-CattaraugusCo-09	Comprehensive Outreach Program	1	1	1	1	1	1	0	1	1	1	1	1	0	1	12	High
2025-CattaraugusCo-10	Smart Growth Planning	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-CattaraugusCo-11	Flood Warning System	1	1	1	1	1	0	1	1	1	1	1	1	0	1	12	High
2025-CattaraugusCo-12	Critical Facility Protection	1	1	1	1	1	1	0	1	1	1	0	1	1	0	11	High
2025-CattaraugusCo-13	Generators at Critical Facilities	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High



Project Number	Project Name	Scores for Evaluation Criteria														High / Medium / Low	
		Life Safety	Property Protection	Cost-Effectiveness	Political	Legal	Fiscal	Environmental	Social Vulnerability	Administrative	Hazards of Concern	Climate Change	Timeline	Community Lifelines	Other Local Objectives		Total
2025-CattaraugusCo-14	Dam and Levee Failure Training	1	1	1	1	1	1	0	1	1	0	1	1	1	0	11	High
2025-CattaraugusCo-15	Outdated FIRMs	1	1	1	1	1	1	1	1	1	0	1	1	0	0	11	High
2025-CattaraugusCo-16	Comprehensive Emergency Management Plan Updates	1	1	1	1	1	1	0	1	1	1	0	1	1	0	11	High
2025-CattaraugusCo-17	County Bridge Evaluations	1	1	1	1	0	0	1	1	1	1	1	1	1	0	11	High
2025-CattaraugusCo-18	Temporary Sheltering	1	0	1	1	1	1	0	1	1	1	1	1	1	0	11	High
2025-CattaraugusCo-19	Seneca Nation Partnership	1	1	1	1	1	1	0	1	1	1	0	1	1	0	11	High
2025-CattaraugusCo-20	Federal Accreditation Standards	1	1	1	1	0	0	0	1	1	1	1	1	1	1	11	High

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



Action 2025-CattaraugusCo-01. Floodprone Roads

Lead Agency:	Cattaraugus County Engineering		
Supporting Agencies:	Cattaraugus County Public Works		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input 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 the County 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"> <li>• CR05/Mosher Hollow Road (Town of New Albion, Town of Leon – “Kendall’s Corners”)</li> <li>• CR05/Mosher Hollow Road (Town of Dayton – near intersection of State Route 353 &amp; CR05)</li> <li>• CR26/Gile Hollow Road (Town of Hinsdale)</li> <li>• CR27/Haskell Road (Town of Portville)</li> <li>• CR44/Flat Iron Road (Town of Conewango)</li> <li>• CR60/West River Road (Town of Allegany)</li> <li>• CR69/Cadiz Road (Town of Franklinville)</li> </ul>		
Description of the Solution:	<p>The County 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"> <li>• Elevation of roadways</li> <li>• Installation or improvement of drainage systems</li> <li>• Regrading of roadway and soils</li> <li>• Resurfacing or reshaping roadways</li> </ul>		
Estimated Cost:	TBD after mitigation technique is chosen		
Potential Funding Sources:	FEMA HMA, County 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 County’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



## 2. County of Cattaraugus

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



Action 2025-CattaraugusCo-02. Undersized Culverts

Lead Agency:	Cattaraugus County Engineering		
Supporting Agencies:	Cattaraugus County Public Works		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	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 County are undersized or have been damaged from instances of flooding and the debris caused by severe storms and severe winter winters including culverts.		
Description of the Solution:	The County Engineer will complete an engineering survey of the culverts in the County that are undersized and contribute to flooding to determine the proper size necessary to provide stormwater capacity. Public Works will complete the necessary upsizing for the culverts.		
Estimated Cost:	TBD after study is complete		
Potential Funding Sources:	FEMA HMA, CHIPS, County Budget		
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:	<b>Action</b>		<b>Evaluation</b>
	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-CattaraugusCo-03. High Hazard Potential Dams

Lead Agency:	Cattaraugus County Public Works
Supporting Agencies:	NYS DEC, Dam Owners, Town of Randolph, Town of Napoli, Town of Conewango, Town of Farmersville, Town of Mansfield, Town of Machias, Town of Franklinville, Town of Lyndon, Town of Ellicottville, Allegany County, Erie County
Hazard(s) of Concern:	<input checked="" type="checkbox"/> Dam and Levee Failure <input type="checkbox"/> Severe Storm <input type="checkbox"/> Flood <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Landslide <input type="checkbox"/> Utility Failure <input type="checkbox"/> Pandemic <input type="checkbox"/> Wildfire
Description of the Problem:	<p>There are 12 high hazard potential dams in the County which have the potential to impact the people, property, infrastructure, and environment nearby. These dams, listed below, are located in nine of the County's local jurisdictions. In addition, there are two high hazard potential dams located outside of Cattaraugus County (Cuba Lake Dam in neighboring Allegany County and Springville Dam in Erie County) which have the potential to impact its local jurisdictions.</p> <ul style="list-style-type: none"> <li>• Conewango Creek Site 1 Dam (Town of Randolph)</li> <li>• Conewango Creek Site 16 Dam (Town of Napoli)</li> <li>• Conewango Creek Site 16a Dam (Town of Conewango)</li> <li>• Conewango Creek Site 19 Dam (Town of Randolph)</li> <li>• Harwood Lake Dam (Town of Farmersville)</li> <li>• Holimont Upper Reservoir Dam (Town of Mansfield)</li> <li>• Ischua Creek Watershed Dam #1 (Town of Machias)</li> <li>• Ischua Creek Watershed Dam #2 (Town of Farmersville)</li> <li>• Ischua Creek Watershed Dam #4 (Town of Franklinville)</li> <li>• Ischua Creek Watershed Dam #5 (Town of Lyndon)</li> <li>• Ischua Creek Watershed Dam #6a (Town of Franklinville)</li> <li>• Tannenbaum Reservoir Dam (Town of Ellicottville)</li> </ul>
Description of the Solution:	The County will work with local jurisdictions to address the listed needed or suggested upgrades, repairs, and additional measures noted in each county-owned dam assessment inspection. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the County will pursue funding support, permit approval from NYS DEC, and implement the cost-effective measures. In stances where the County does not own the dam, the County will work with local jurisdictions to make contact with the dam owner and identify and implement any upgrades, repairs, or additional measures to decrease the risk of dam failure. The County will seek to perform updated dam assessments to each of the county-owned dams within the next five years.
Estimated Cost:	Low
Potential Funding Sources:	County Budget, Local Jurisdiction Budgets, Dam Owners
Implementation Timeline:	Within 5 years
Goals Met:	1, 2, 3, 7
Benefits:	This action will improve the safety and security of those who live near the dams and increase the resilience of responding agencies.
Impact on Socially Vulnerable Populations:	The action will result in better preparedness for those living near areas where the dams are located.
Impact on Future Development:	Future development near the dams will be more secure as safety procedures and inspections are regularly performed on the dams.
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.



Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem persists
	Utilize information from NYS DEC		Owners may not be required to submit a safety plan to the State
	Utilize information from the National Inventory of Dams		Not all dams are listed on the inventory



Action 2025-CattaraugusCo-04. Intermediate Hazard Potential Dams

Lead Agency:	Cattaraugus County Public Works
Supporting Agencies:	NYS DEC, Dam Owners, Town of Machias, Town of East Otto, Town of Coldspring, Town of New Albion, Town of Farmersville, Village of Ellicottville, Town of Ellicottville, Town of Randolph, Town of Red House, Town of Freedom, Allegany County, Chautauqua County
Hazard(s) of Concern:	<input checked="" type="checkbox"/> Dam and Levee Failure <input type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic <input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire
Description of the Problem:	<p>In addition to the 12 high hazard potential dams within the County, there are 14 intermediate hazard dams, which have the potential to impact the people, property, infrastructure, and environment nearby. These dams, listed below, are located in ten of the County's local jurisdictions. In addition, there are two high hazard potential dams located outside of Cattaraugus County (Cuba Lake Spillway Dam in neighboring Allegany County and Conewango Creek Site 6 Dam in Chautauqua County) which have the potential to impact its local jurisdictions.</p> <ul style="list-style-type: none"> <li>• Lime Lake Outlet Dam (Town of Machias)</li> <li>• Rainbow Lake Dam (Town of East Otto)</li> <li>• Quaker Run Dam (Town of Coldspring)</li> <li>• Cabic Pond Dam (Town of New Albion)</li> <li>• Efner Davis Pond Dam (Town of Machias)</li> <li>• Conewango Creek Site 13 Dam (Town of New Albion)</li> <li>• Ischua Creek Watershed Dam #3 (Town of Farmersville)</li> <li>• William O Nannen Pond Dam (Village of Ellicottville)</li> <li>• Camp Chautauqua Pond Dam (Town of Randolph)</li> <li>• Sunset Saddle Dam (Town of Ellicottville)</li> <li>• Red House Lake Dam (Town of Red House)</li> <li>• Rotary Lake Dam (Town of Freedom)</li> <li>• Edgar Ploetz Recreational Pond Dam (Town of Ellicottville)</li> <li>• Richard Weishan Pond Dam (Town of East Otto)</li> </ul>
Description of the Solution:	The County will work with local jurisdictions to contact the owners of the dams to ensure inspections and safety procedures are up to date. If cost-effective mitigation measures or retrofit options are identified that can increase the level of safety and length of useful life, the Dam Owner will pursue funding support, permit approval from NYS DEC, and implement the cost-effective measures.
Estimated Cost:	Low
Potential Funding Sources:	County Budget, Local Jurisdiction Budgets, Dam Owners
Implementation Timeline:	Within 5 years
Goals Met:	1, 2, 3
Benefits:	This action will improve the safety and security of those who live near the dams and increase the resilience of responding agencies.
Impact on Socially Vulnerable Populations:	The action will result in better preparedness for those living near areas where the dams are located.
Impact on Future Development:	Future development near the dams will be more secure as safety procedures and inspections are regularly performed on the dams.
Impact on Critical Facilities/Lifelines:	Dams are considered a critical facility. This action will create an understanding of the safety procedures in place for each identified dam and strengthen the structural integrity of dam, as needed.
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam failure event. This action will increase the capabilities to respond to these events.



Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem persists
	Utilize information from NYS DEC		Owners may not be required to submit a safety plan to the State
	Utilize information from the National Inventory of Dams		Not all dams are listed on the inventory



Action 2025-CattaraugusCo-05. Repetitive Loss Properties

Lead Agency:	Cattaraugus County Public Works		
Supporting Agencies:	Local Jurisdiction Floodplain Administrators, Homeowners		
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>Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. There are 82 repetitive loss properties across the County, but other properties may be impacted by flooding. The County has identified the following locations that would be good candidates for targeting mitigation:</p> <ul style="list-style-type: none"> <li>• East Otto: Hammond Hill, 13 homes/cottages</li> <li>• Ashford Triangle: three (3) houses total</li> <li>• Little Valley: one (1) home</li> <li>• Coldspring: one (1) home</li> </ul>		
Description of the Solution:	<p>The County will work with local jurisdictions to conduct outreach to the impacted properties and will provide information on mitigation alternatives. After preferred mitigation measures are identified, the Town will collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition, purchase, moving, elevating of the affected properties that experience frequent flooding. The parameters for this initiative would be funding, benefits versus cost, and willing participation of property owners.</p>		
Estimated Cost:	TBD depending on mitigation method		
Potential Funding Sources:	FEMA FMA, FMA SWIFT, Local Jurisdiction 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 NFIP capabilities of each local jurisdiction.		
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, and riverine flooding 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.
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Action 2025-CattaraugusCo-06. Ashford Triangle Flood Mitigation

Lead Agency:	Cattaraugus County Soil and Water Conservation District		
Supporting Agencies:	Cattaraugus County Public Works, Town of Ashford		
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:	Properties located within a triangular parcel of land, known as the Ashford Triangle, bordered by White Street, County Road No. 53, and County Road No. 32 in the Town of Ashford, NY, Cattaraugus County have experienced repetitive damage due to flood events (Tax parcel nos. 29.011-2-28.2, 29.011-2-28.1, and 29.011-2-30).		
Description of the Solution:	Cattaraugus County Soil and Water Conservation District and Public Works will coordinate efforts to solicit grant funding for a feasibility study to better assess mitigation strategies in this area.		
Estimated Cost:	TBD after mitigation technique is chosen		
Potential Funding Sources:	FEMA HMA, County Budget, CHIPS		
Implementation Timeline:	Within 5 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. 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:	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. 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:	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 NFIP capabilities of the Town of Ashford. This action improves the County's reliability in terms of transportation.		
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of severe rainfall, flash flooding, and riverine flooding events. Removing structures from floodprone areas 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 checked="" 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
	Raise all flood prone roads		Cost prohibitive
	Deployable flood barriers		Requires deployment. Residents may not have adequate time to deploy, especially those who are elderly or disabled.



Action 2025-CattaraugusCo-07. Landslide Prone Roads

Lead Agency:	Cattaraugus County Engineering		
Supporting Agencies:	Cattaraugus County Public Works		
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:	Landslide events are often driven by hazards such as heavy rain events, flooding, heavy snowmelt, and wildfires. Landslides can destroy the natural and built environments, causing detriment to the structures in its path. The County does not have an inventory of roads which may be impacted by landslides.		
Description of the Solution:	The County Engineer will complete an assessment to identify roads in the County which have slopes at grades greater than 20 percent, and to identify areas where soils are soft and may have an increased vulnerability to the landslide hazard. Once identified, the Engineer will work with Public Works to prioritize roadways and identify possible mitigation measures. This study may also be used to identify locations where future development should not occur due to heightened risk of landslides.		
Estimated Cost:	Medium		
Potential Funding Sources:	County Budget		
Implementation Timeline:	3 years		
Goals Met:	1, 4, 6		
Benefits:	This action will identify locations with steep grades (above 20 percent) and soft soils and provide Engineering and Public Works with future locations to implement mitigation measures to protect any nearby property and infrastructure.		
Impact on Socially Vulnerable Populations:	This action may identify socially vulnerable populations whose properties may be at risk to the landslide hazard. If identified, the County may educate the populations on how to mitigate potential risks to these populations and their property.		
Impact on Future Development:	The identification of at-risk roads may lead to restrictions for future development.		
Impact on Critical Facilities/Lifelines:	This action has the potential to 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 may improve the County's regulatory capabilities.		
Climate Change Considerations:	A warmer atmosphere means storms have the potential to be more intense and occur more often, including increased periods of intense rain events. Saturated soils can lead to an increased possibility of landslide occurrences. Conversely, drier summer conditions may fuel wildfires, leading to unstable soils and resulting in landslide occurrences.		
Mitigation Category	<input 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 checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		County will be unaware of any safety concerns for the dam or its condition
	Do not use inventory to inform the location of future development		Would not restrict future development, could increase at risk properties and structures
	Do not use inventory to inform future projects		Risk would not be reduced



Action 2025-CattaraugusCo-08. Emergency Planning

Lead Agency:	Cattaraugus County Office of Emergency Services		
Supporting Agencies:	Cattaraugus County Sheriff's Office, Facility Managers		
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 checked="" type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	Power and communications outages put the public and critical facilities at risk. The Office of Emergency Services and Sheriff's Office have worked to improve communications throughout the County, including radio system updates, integration of digital communication technology, and coordination with local jurisdictions to incorporate early warning systems. Additionally, backup generators were installed or upgraded at all remote communications sites.		
Description of the Solution:	The Office of Emergency Services and the Sheriff's Office will continue to work with critical facilities to develop emergency communications plans and emergency power backup plans. The Office of Emergency Services will also work to update potential emergency sheltering options.		
Estimated Cost:	Medium		
Potential Funding Sources:	County Budget, Facility Budgets		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 2, 4, 5		
Benefits:	This action protects public health and safety and ensures continued operation of critical facilities and their essential functions during a power outage.		
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
Impact on Future Development:	This action results in protection of critical facilities that could support future development.		
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of critical facilities and their essential functions during a power outage.		
Impact on Capabilities:	This action ensures continuity of operations to maintain capabilities.		
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem exists	
	Have critical facilities perform their own assessments.	Assessments may miss key information.	
	Have critical facilities write their own plans.	Plans may miss key information.	



Action 2025-CattaraugusCo-09. Comprehensive Outreach Program

Lead Agency:	Cattaraugus County Office of Emergency Services		
Supporting Agencies:	Local Jurisdictions, NYS DHSES		
Hazard(s) of Concern:	<input checked="" type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Landslide <input checked="" type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Utility Failure <input checked="" type="checkbox"/> Wildfire	
Description of the Problem:	The County has a comprehensive education and outreach program which addresses all identified hazards of concern; however, the information should be updated to include mitigation strategies to reduce long-term risk to the general public and properties. There is a need to educate residents and businesses about hazard mitigation, preparation, response, and recovery utilizing a variety of outreach methods.		
Description of the Solution:	Create and update outreach materials, or utilize those from NYS DHSES, on hazard risks and methods of mitigation measures, including those for dam and levee failure, flood, landslide, pandemic, severe storm, severe winter storm, utility failure, and wildfire. Methods of distribution may include County events, the County newsletters, social media, the County website, and having the materials on display for the public at County libraries and offices. Outreach materials will be specified with education and information for each individual hazard of concern. Created and updated materials will be shared with local jurisdictions for their outreach programs.		
Estimated Cost:	Low		
Potential Funding Sources:	County Budget		
Implementation Timeline:	1 year		
Goals Met:	1, 2, 3, 4		
Benefits:	This action will improve the current public education and outreach program in the County by including discussions on disaster preparedness and hazard mitigation to residents and business owners, which will contribute to the resiliency of the County.		
Impact on Socially Vulnerable Populations:	Socially vulnerable populations will learn how to prepare for and mitigate the various hazards which may impact them in the County.		
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 potential hazards. 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 already existing public education and outreach program.		
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. This action will inform residents and business owners of how to reduce risk from hazards and how climate change may exacerbate those risks.		
Mitigation Category	<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 County
	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-CattaraugusCo-10. Smart Growth Planning

Lead Agency:	Cattaraugus County Department of Economic Development, Planning and Tourism		
Supporting Agencies:	Local Jurisdictions		
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:	Development in the floodplain can increase risk to property and life. Flooding events have resulted in damages to residential and commercial properties. Restricting development in floodplains reduces the risk of future damages.		
Description of the Solution:	Cattaraugus County Department of Economic Development, Planning and Tourism will educate local jurisdictions on "Smart Growth" practices in the floodplains and how to integrate these practices into local planning and regulatory.		
Estimated Cost:	Low		
Potential Funding Sources:	County Budget		
Implementation Timeline:	Within 2 years		
Goals Met:	1, 2, 4		
Benefits:	Smart growth practices are a range of development and conservation strategies that help protect the natural environment and make communities more attractive, livable, and economically vibrant.		
Impact on Socially Vulnerable Populations:	Smart growth practices can improve pedestrian and bicycle amenities, promote public transit, create a range of housing opportunities and choices, and foster distinctive, attractive communities with a strong sense of place, all of which can improve the living environment of the population.		
Impact on Future Development:	Smart growth practices can lessen the environmental impacts of development.		
Impact on Critical Facilities/Lifelines:	Not applicable		
Impact on Capabilities:	Smart growth practices can enhance local jurisdiction's planning and regulatory capabilities.		
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. Smart growth practices can assist in mitigating risks from hazards.		
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:	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem exists	
	Local jurisdictions do not incorporate Smart Growth into plans	Practices are not fully ingrained into capabilities	
	Local jurisdictions do not incorporate Smart Growth into regulations	Practices are not fully ingrained into capabilities	



Action 2025-CattaraugusCo-11. Flood Warning System

Lead Agency:	Cattaraugus County Office of Emergency Services		
Supporting Agencies:	NWS, USGS, Local Jurisdictions		
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 County 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. Flash floods are a rapid rise of water along a stream or low-lying urban area. They occur within a few minutes or hours of excessive rainfall, a dam or levee failure, or a sudden release of water held by an ice jam. With such limited time for response, flood gauging is necessary for adequate warning.		
Description of the Solution:	The County will evaluate areas that need a flood warning system constructed and construct the system where necessary. As needed, the County will consult with the National Weather Service (NWS) and the United States Geographical Survey (USGS) to identify appropriate areas for flood gauges.		
Estimated Cost:	Medium		
Potential Funding Sources:	FEMA HMA, NWS, USGS, County Budget		
Implementation Timeline:	3 years		
Goals Met:	1, 4, 5, 6		
Benefits:	This action will improve the alert and warning capabilities of the County 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 County 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-CattaraugusCo-12. Critical Facility Protection

Lead Agency:	Critical Facility Owners and Managers		
Supporting Agencies:	Cattaraugus County Engineering, Cattaraugus County Public Works		
Hazard(s) of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	Randolph Highway Barn, Allegany Transfer Station, and Portville Transfer Station are located in the special flood hazard area and may be vulnerable to flooding. Critical facilities must be protected to the 0.2% annual chance flood level.		
Description of the Solution:	<p>The County 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"> <li>• Elevation of facility</li> <li>• Floodproofing of facility</li> <li>• Mobile flood barriers</li> <li>• Relocation of facility</li> </ul> <p>Once the most cost-effective option is identified, the County 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, County Budget		
Implementation Timeline:	Within 5 Years		
Goals Met:	1, 3, 5		
Benefits:	Ensures continuity of operations of several critical facilities in the County.		
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 all facilities		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-CattaraugusCo-13. Generators at Critical Facilities

Lead Agency:	Cattaraugus County Engineering		
Supporting Agencies:	Cattaraugus County Public Works, Cattaraugus County Board of Elections		
Hazards of Concern:	<input type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	Critical facilities require backup power to ensure continuity of operations. The Highway Barns require backup power: Markhams (100 kw); Randolph (100 kw); West Valley (100 kw), currently have unsustainable, portable generators, but require automatic, fixed units in order to produce energy supply to ensure continuity of operations in the event of a utility or power failure; the Board of Elections facility (207 Rock City Street, Little Valley) does High winds associated with severe storms and severe winter storms are known to cause utility failures, which would impact the continuity of operations at the critical facility. Rising water levels from floods could impact these facilities; back-up generators would permit any influx of water to be removed from the facilities via pumping systems.		
Description of the Solution:	The Engineer will conduct a study to determine the required generator capacity to support the critical facility. The County will then purchase and install the generator and all necessary electrical hookup components. The installation of the back-up emergency generators will ensure continuity of operations for the critical facilities and their operations during each identified hazard of concern. With expectations to provide essential services during times of emergency and otherwise, having a back-up power source is crucial. Long-term risks are mitigated through an emergency generator by reducing the likelihood of impacts from power outages, allowing essential services to continue.		
Estimated Cost:	High		
Potential Funding Sources:	FEMA HMA, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, County Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 4, 5		
Benefits:	This action protects public health and safety and ensures continued operation of critical facilities and their essential functions during a power outage.		
Impact on Socially Vulnerable Populations:	Protection of critical facilities provides an opportunity for first responders, utility workers, and emergency managers to stage and deploy resources to vulnerable and hazard prone areas.		
Impact on Future Development:	This action results in protection of critical facilities that could support future development.		
Impact on Critical Facilities/Lifelines:	This action protects public health and safety and ensures continued operation of critical facilities and their essential functions during a power outage.		
Impact on Capabilities:	This action ensures continuity of operations to maintain capabilities.		
Climate Change Considerations:	Climate change is likely to increase severe weather events such as flooding, wind, and extreme temperatures that result in power failures. This action accounts for a likely increase in power failure events.		
Mitigation Category	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives	Action		Evaluation
	No Action		-
	Microgrid		Costly and difficult to implement.
	Solar panels and battery backup		Solar power is unlikely to be able to provide battery power for extended power failure events.



Action 2025-CattaraugusCo-14. Dam and Levee Failure Training

Lead Agency:	Cattaraugus County Office of Emergency Services		
Supporting Agencies:	Cattaraugus County Public Works, Dam Owners		
Hazard(s) of Concern:	<input checked="" type="checkbox"/> Dam and Levee Failure <input type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic <input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire		
Description of the Problem:	A dam and/or levee failure is considered a low frequency event, meaning the likelihood of a failure is low; however, should a failure occur, the consequences could be high. Because of the low probability of occurrence, training for such events is uncommon and often not conducted. Emergency drills for low frequency events such as dam and/or levee failure must occur so first responders are aware of the procedures to follow and how to mitigate any identified gaps in their training. Conducting these trainings in collaboration with dam and/or levee owners can also make the owners aware of any vulnerabilities their infrastructure may have.		
Description of the Solution:	The Cattaraugus County Office of Emergency Services and Public Works will participate in emergency drills for low frequency events such as dam and/or levee failure. These trainings will be held in collaboration with dam and/or levee owners to make the owners aware of any vulnerabilities their infrastructure may have.		
Estimated Cost:	Low		
Potential Funding Sources:	County Budget, HSPG		
Implementation Timeline:	Within 3 years		
Goals Met:	1, 4, 5, 7		
Benefits:	This action will improve the safety and security of those who live near the dams and/or levees and increase the resilience of responding agencies.		
Impact on Socially Vulnerable Populations:	This action will improve the safety and security of those who live near the dams and/or levees and increase the resilience of responding agencies.		
Impact on Future Development:	Not applicable		
Impact on Critical Facilities/Lifelines:	Dams and/or levees are considered a critical facility. This action will create an understanding of response and protection procedures to a dam and/or levee failure event.		
Impact on Capabilities:	This action will improve planning and response capabilities through the understanding of responsibilities and procedures.		
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events, which may contribute to the likelihood of a dam and/or levee event. This action will increase the capabilities to respond to these events.		
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
	Hold trainings without dam and/or levee owners		Dam and/or levee owners may not become aware of any vulnerabilities to their infrastructure
	Perform drills and trainings without input from SMEs		Drills and trainings may not have all necessary information



Action 2025-CattaraugusCo-15. Outdated FIRMs

Lead Agency:	Cattaraugus County Office of Emergency Services		
Supporting Agencies:	NYS DEC, NYS DHSES, FEMA, Local Jurisdictions		
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:	FIRMs are outdated and may not accurately display flood risk. Inaccurate flood maps can misinform the public of actual flood risk and may prevent interested homeowners from receiving or applying for flood insurance. Correctly displaying the areas at risk to the flood hazard is not only critical to visually show the risk, but to support grant applications for funding to mitigate the flood risk at identified locations within or around the floodplain.		
Description of the Solution:	The County will actively participate in the remapping process in partnership with NYS DEC, NYS DHSES, FEMA, and Local Jurisdictions. This participation will include providing data and information to support map revisions, identifying areas of flooding concern, providing review of preliminary maps, and adopting updated flood damage prevention local laws when the FIRMs are finalized.		
Estimated Cost:	Medium		
Potential Funding Sources:	FEMA HMA, State Budget, County Budget, Local Jurisdictional Budget		
Implementation Timeline:	Within 5 years		
Goals Met:	1, 2, 4		
Benefits:	Updating FIRMs will provide a more complete picture of the floodplain and the overall flood hazard in Cattaraugus County. This will inform other sectors of the community, including land use, development, permitting, and codes and standards.		
Impact on Socially Vulnerable Populations:	An analysis of the floodplain will inform future community development and land use and prevent vulnerable populations from residing in areas of heightened flood risk.		
Impact on Future Development:	Updated FIRMs will decide which populations and structures will require flood insurance to be built in areas of flood hazard.		
Impact on Critical Facilities/Lifelines:	Creation of updated floodplain maps will inform efforts to increase the resilience of critical infrastructure that is present in those areas, including transportation routes, water treatment plants, and other utility services. This will also aid in preventing future development of infrastructure in these areas.		
Impact on Capabilities:	An understanding of the floodplain will allow for the development of processes, plans, training and staff placement to address flooding issues in the areas of greatest concern before they occur.		
Climate Change Considerations:	The maps that are developed as a result of this action may not remain current or valid for the length of time that they may have in the past due to changes in floodplains and increases in extreme rainfall events.		
Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem exists
	County creates its own flood maps		Time consuming, cost prohibitive, may not be recognized as official documentation in grant applications
	FEMA updates maps without County input		Required changes for areas of flooding may not be incorporated



Action 2025-CattaraugusCo-16. Comprehensive Emergency Management Plan Updates

Lead Agency:	Cattaraugus County Office of Emergency Services		
Supporting Agencies:	Local Jurisdictions		
Hazard(s) of Concern:	<input checked="" type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Landslide <input checked="" type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Utility Failure <input checked="" type="checkbox"/> Wildfire	
Description of the Problem:	Local jurisdictional Comprehensive Emergency Management Plans (CEMPs) may be outdated and do not incorporate hazard mitigation principles. Hazard mitigation principles need to be integrated into the CEMP. A CEMP establishes the overall authority, roles, and functions performed during incidents. Incorporating hazard mitigation principles into a CEMP ensures hazard risk is identified.		
Description of the Solution:	Local jurisdictions will update their Comprehensive Emergency Management Plan (CEMP), with support from the Cattaraugus County Office of Emergency Services. The CEMP will integrate hazard mitigation principles into its contents, including addresses capabilities related to reducing the risk to the identified hazards of concern identified with this Hazard Mitigation Plan. The local jurisdictions will send the CEMP to the County for review, followed by a State review, as required.		
Estimated Cost:	Low		
Potential Funding Sources:	County Budget, Jurisdictional Budgets, EMPG		
Implementation Timeline:	3 years		
Goals Met:	1, 2, 4, 5		
Benefits:	The CEMP details what each local jurisdiction will do during a disaster (incident command implementation, command center location and activities, specific plans by department, etc.). The creation of a CEMP will permit each local jurisdiction to integrate new plans, policies, capabilities, and hazard assessments.		
Impact on Socially Vulnerable Populations:	The section overview portion of the CEMP covers a discussion of a variety of topics, including population distribution and locations, including any concentrated populations of individuals with disabilities, others with access and functional needs, or individuals with limited English proficiency.		
Impact on Future Development:	Future development will be protected by the actions which each local jurisdiction performs following the CEMP.		
Impact on Critical Facilities/Lifelines:	The section overview portion of the CEMP covers a discussion of a variety of topics, including vulnerable critical facilities (e.g. nursing homes, schools, hospitals, infrastructure).		
Impact on Capabilities:	This action will update a planning and response capability for each local jurisdiction.		
Climate Change Considerations:	Climate change may result in an increase in the frequency and severity of weather-related disaster events. As impacts from climate change are increasingly felt, the contents in a CEMP, including in the basic plan and any annexes, may need to be updated.		
Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action		Evaluation
	No Action		Current problem exists
	Integrate hazard mitigation principles in only hazard appendices		The plan will miss integration opportunities in the basic plan and annexes
	County integrates hazard mitigation into the County CEMP		Each local jurisdiction CEMP will remain not updated



Action 2025-CattaraugusCo-17. County Bridge Evaluations

Lead Agency:	Cattaraugus County Engineering
Supporting Agencies:	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 several County bridges has developed due to erosion. This erosion may have occurred 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 have caused flooding conditions to further erode the structure of the bridge. The following bridges should be evaluated to determine useability and to identify potential solutions:</p> <ul style="list-style-type: none"> <li>• Conewango 06</li> <li>• Conewango 14</li> <li>• Ellicottville 49</li> <li>• East Otto 12</li> <li>• East Otto 23</li> <li>• Farmersville 05</li> <li>• Farmersville 25</li> <li>• Freedom 25</li> <li>• Leon 36</li> <li>• Little Valley 06</li> <li>• Lyndon 03</li> <li>• Mansfield 12</li> <li>• Mansfield 37</li> <li>• Mansfield 51</li> <li>• Mansfield 62</li> <li>• Napoli 08</li> <li>• Otto 03</li> <li>• Otto 04</li> <li>• South Valley 04</li> <li>• South Valley 05</li> <li>• South Valley 08</li> <li>• Yorkshire 20</li> </ul>
Description of the Solution:	The Engineer will 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.
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 County 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



<b>Climate Change Considerations:</b>	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.		
<b>Mitigation Category</b>	<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)
<b>CRS Category</b>	<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)
<b>Priority</b>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
<b>Alternatives:</b>	<b>Action</b>	<b>Evaluation</b>	
	No Action	Current problem exists	
	Remove bridges	May cause significant traffic problems	
	Replace bridges	Cost prohibitive	



Action 2025-CattaraugusCo-18. Temporary Sheltering

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



Action 2025-CattaraugusCo-19. Seneca Nation Partnership

Lead Agency:	Cattaraugus County Office of Emergency Services	
Supporting Agencies:	Cattaraugus County Public Works, Seneca Nation of Indians	
Hazard(s) of Concern:	<input checked="" type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Landslide <input checked="" type="checkbox"/> Pandemic	<input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input checked="" type="checkbox"/> Utility Failure <input checked="" type="checkbox"/> Wildfire
Description of the Problem:	Seneca Nation of Indians has territorial lands within Cattaraugus County, therefore hazards within Cattaraugus County, including all the hazards identified within this plan, may also impact Tribal lands. Increasing communications across entities can reduce hazard risk on shared lands.	
Description of the Solution:	Cattaraugus County and the Seneca Nation of Indians will increase communications and shared efforts to reduce hazard risks across shared lands.	
Estimated Cost:	Low	
Potential Funding Sources:	County Budget	
Implementation Timeline:	1 year	
Goals Met:	1, 2, 6	
Benefits:	This action will increase the number of available capabilities to reduce hazard risks across Cattaraugus County and within Seneca Nation territories, enabling both entities to further implement short-term and long-term mitigation actions.	
Impact on Socially Vulnerable Populations:	Populations within both jurisdictions will have increased resiliency as capabilities are shared.	
Impact on Future Development:	Not applicable	
Impact on Critical Facilities/Lifelines:	Not applicable	
Impact on Capabilities:	This action will increase the number of available capabilities to reduce hazard risks across Cattaraugus County and within Seneca Nation territories.	
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events. Sharing resources can increase available capabilities to reduce hazard 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 checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium
Alternatives:	<b>Action</b>	
	No Action	
	Only certain County entities will partner with Seneca Nation of Indians	Not all shared problems may be mitigated
	Only certain Seneca Nation of Indians entities will partner with Cattaraugus County	Not all shared problems may be mitigated



Action 2025-CattaraugusCo-20. Federal Accreditation Standards

Lead Agency:	Cattaraugus County Public Works		
Supporting Agencies:	Local Jurisdictions, FEMA, USACE, Dam Owners, Levee Owners		
Hazard(s) of Concern:	<input checked="" type="checkbox"/> Dam and Levee Failure <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Landslide <input type="checkbox"/> Pandemic	<input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Utility Failure <input type="checkbox"/> Wildfire	
Description of the Problem:	There are 40 dams and seven federally accredited levee systems within Cattaraugus County. Federal accreditation of floodwater retention structures shows the dams and levees have met and continue to meet the minimum regulatory standards set by the regulatory agencies. The accreditation of these structures show they are able to support efforts in the mitigation of flood risk.		
Description of the Solution:	Cattaraugus County will partner with local jurisdictions which have dams or levees within their jurisdictional boundaries to assist with communications to dam and levee owners and operators. Communication with dam and levee owners and operators will be focused on ensuring the structure(s) are accredited and/or how to get the structure(s) accredited.		
Estimated Cost:	Low		
Potential Funding Sources:	County Budget, Jurisdictional Budget(s), Dam Owners, Levee Owners		
Implementation Timeline:	4 years		
Goals Met:	1, 2, 4, 6, 7		
Benefits:	Federal accreditation of floodwater retention structures shows the dams and levees have met and continue to meet the minimum regulatory standards set by the regulatory agencies. The accreditation of these structures show they can support efforts in the mitigation of flood risk.		
Impact on Socially Vulnerable Populations:	Accreditation of the structures show they can support efforts in the mitigation of flood risk, including impacts on the populations, and their property, near the structures.		
Impact on Future Development:	Accreditation of the structures show they can support efforts in the mitigation of flood risk. Future development near the structures will have reduced risk to the flood hazard.		
Impact on Critical Facilities/Lifelines:	Accreditation of the structures show they can support efforts in the mitigation of flood risk. Critical facilities near the structures will have reduced risk to the flood hazard. Dams and levees are critical facilities. Accredited structures meet the minimum regulatory standards set by the regulatory agencies.		
Impact on Capabilities:	This action will strengthen flood risk reduction capabilities. Having an accredited structure means they can support efforts in mitigating the risk of the flood hazard.		
Climate Change Considerations:	Climate change is likely to increase the intensity and frequency of many climate related disaster events, including heavy rainfalls and flooding events. Heavy rainfalls can cause additional pressure and stress on dams and levees, leading to failure. Federal accreditation of floodwater retention structures shows the dams and levees have met and continue to meet the minimum regulatory standards set by the regulatory agencies.		
Mitigation Category	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
CRS Category	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input checked="" type="checkbox"/> Emergency Services (ES)	
Priority	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action	Evaluation	
	No Action	Current problem exists	
	Only work to ensure dam accreditation	Levees may not be accredited	
	Only work to ensure levee accreditation	Dams may not be accredited	