

MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN UPDATE

Chenango County, New York



VOLUME II - Part 1



Prepared By:
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2021 Update

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SECTION 8. PLANNING PARTNERSHIP

This section provides a description of the Chenango County’s HMP update planning partnership, their responsibilities throughout the planning process, and the jurisdictional annexes developed from their plan update efforts.

8.1 Background

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for hazard mitigation. All participating jurisdictions must meet the requirements of Chapter 44 of the Code of Federal Regulations (44 CFR):

“Multi-jurisdictional plans (e.g. watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan” [Section 201.6a (4)].

For the Chenango County HMP update, a Planning Partnership was formed to leverage resources and to meet requirements for the federal Disaster Mitigation Action of 2000 (DMA) for as many eligible governments as possible. The DMA provides the following definition for a local government:

Any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under state law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity.

Each participating planning partner has prepared a jurisdictional annex to this plan. These annexes, as well as information on the process by which they were created, are contained in this Volume 2 of this HMP.

8.1.1 Initial Solicitation and Letters of Intent

Chenango County solicited the participation of all municipalities in the county at the commencement of this project. All municipalities interested signed a *Letter of Intent* or a resolution committing their participation and resources to the development of the Chenango County HMP update (Appendix B). Table 8-1 lists the jurisdictions that elected to participate in the update process and have met the minimum requirements of participation as established by the county and the Steering Committee. Chenango County and 29 municipalities participated in the HMP update.

Table 8-1. Participating Jurisdictions in Chenango County

Jurisdictions		
Chenango County		
Afton (T)	Guilford (T)	Oxford (V)
Afton (V)	Lincklaen (T)	Pharsalia (T)
Bainbridge (T)	McDonough (T)	Pitcher (T)
Bainbridge (V)	New Berlin (T)	Plymouth (T)
Columbus (T)	New Berlin (V)	Preston (T)
Coventry (T)	North Norwich (T)	Sherburne (T)
Earlville (V)	Norwich (C)	Sherburne (V)
German (T)	Norwich (T)	Smithville (T)
Greene (T)	Otselic (T)	Smyrna (T)
Greene (V)	Oxford (T)	



8.2 Planning Partner Responsibilities

The Planning Committee agreed to the following list of expectations:

- Review 2015 HMP goals and re-establish HMP update goals and objectives.
- Establish a timeline for completion of the HMP update.
- Ensure the HMP update meets the requirements of the DMA 2000 and FEMA and NYS DHSES guidance.
- Solicit and encourage the participation of regional agencies, a range of stakeholders, and citizens in the HMP development process.
- Assist in gathering information for inclusion in the HMP, including the use of previously developed reports and data.
- Organize and oversee the public involvement process and support outreach efforts in the community.
- Develop, revise, adopt, and maintain Volume I of the HMP update in its entirety and the local jurisdictional annex in Volume II.

As described in Section 7 (Plan Maintenance), the planning partnership is intended to remain active beyond the regulatory update to support plan maintenance. Regarding the composition of the Steering and Planning Committees, it is recognized that individual commitments change over time, and it will be the responsibility of each jurisdiction and its representatives to inform the HMP Coordinator of any changes in representation.

8.2.1 Jurisdictional Annex Preparation Process

As stated in the 2017 New York State Hazard Mitigation Planning Standards, jurisdictional annexes provide a unique, stand-alone guide to mitigation planning for each jurisdiction. The Chenango County HMP Update is organized so that there is an annex for Chenango County and for every jurisdiction within the county's borders. Section 9 (Jurisdictional Annexes) includes an annex for every jurisdiction in Chenango County, including those that did not fully participate.

During the planning process, the nation, the State of New York, and Chenango County were facing the COVID-19 pandemic. The COVID-19 pandemic was declared a major disaster on March 20, 2020 (DR-4480). The Governor of New York issued a stay-at-home Executive Order beginning March 22, 2020, which remained in effect the duration of the planning process. With the stay-at-home orders in place, all meetings during the planning process were held virtually.

Annex Development

In order to facilitate update of the County and Jurisdictional Annexes, data from the 2015 Chenango County HMP annexes was transferred to a new, updated new annex format, developed to meet federal and state criteria. Clear instructions provided to the County and municipality. These instructions provided a basis to address the following:

- Document changes in capabilities and vulnerabilities
- Provide a current status of the 2015 HMP mitigation strategy
- Develop a new mitigation strategy to address identified issues and to increase community resiliency

The County invited all municipalities to participate in a municipal kick-off meeting held on August 12, 2020, to provide an overview of the planning process. Subsequently, the contract consultant convened a series of virtual workshop meetings to assist each municipality in updating, integrating and completing annex input. During the



first round of meetings the consultant guided the municipal representatives through the annex document, focusing on growth and development trends; planning, legal, fiscal and regulatory capabilities; education and outreach capabilities; NFIP information and capabilities; areas of integration; and updating the 2015 mitigation strategy. The consultant guided the municipal representatives through the annex document and updated information jointly where appropriate. Following the meeting, the municipalities were tasked with providing information that could not be determined during the call. The second round of meetings focused on the relative risk ranking of the hazards of concern including the community's adaptive capacity and included a follow-up on items flagged in the first meeting. In addition to the meetings, the consultant reviewed planning mechanisms including plans, regulations, and codes to identify gaps or mitigation actions as well as integration opportunities with the HMP.

A mitigation workshop was held on January 13, 2021 to provide an overview of developing a strong mitigation strategy. In preparation for this workshop the consultant held a mitigation brainstorming meeting on December 9, 2020 to provide an introductory overview of mitigation action development and provided municipalities mitigation brainstorming/development worksheets to guide communities to identify areas of concern where mitigation actions can be implemented to reduce vulnerabilities and to support the development of relevant projects to form the mitigation strategy. Finally, the last round of support meetings addressed the development of the updated mitigation strategy as well the confirmation of sheltering, housing and evacuation route information.

Hazard Ranking Exercise

The risk assessment and risk ranking for each jurisdiction was presented virtually on October 7, 2020 in a meeting including discussion of the overall risk assessment for the hazards of concern. At this meeting, each planning partner was asked to review the ranked risk specific for its jurisdiction. Refer to Section 5.3 (Hazard Ranking) for the methodology of the hazard ranking process. The calculated ranking was presented to each jurisdiction, and they were asked to review the ranking and revised based on history of events, probability of occurrence, and the potential impact on people, property, and the economy. The objectives of this exercise were to familiarize the partnership with how to use the risk assessment as a tool to support other planning and hazard mitigation processes and to help prioritize types of mitigation actions that should be considered. Hazards that were ranked as *high* for each jurisdiction as a result of this exercise were considered to be priorities for identifying appropriate mitigation actions, although jurisdictions also identified actions to mitigate *medium* or *low* ranked hazards, as appropriate.

Mitigation Strategy Workshop

NYS DHSES attended and presented at a mitigation strategy workshop to Chenango County and its jurisdictions on January 13, 2021. At this meeting, NYS DHSES discussed the importance of developing mitigation actions and spoke about state requirements for the plan. The purpose of this workshop was to guide the planning partnership in completing this portion of the planning process and how projects that are well developed and documented are more quickly identifiable for selection when grants become available. Information regarding consultant support prior to and subsequent to the meeting is provided in the Annex Development section, above.

Municipal Support Meetings

In addition to the municipal kick-off meeting, municipal support meetings were held throughout June, July, and August 2020. At these support meetings, the consultant worked one-on-one with the planning partners to complete their jurisdictional annex. Each section of the annex was discussed to ensure accuracy and completeness. This included, but not limited to, the following:



- Reviewing the calculated hazard ranking for the jurisdiction and provide input to adjust the ranking as necessary.
- Inspecting the list of critical facilities located in the jurisdiction and its exposure to the 1 percent and 0.2 percent flood hazard area. As required in the 2017 New York State Hazard Mitigation Planning Standards, critical facilities located in the Special Flood Hazard Area must document that critical facilities are protected to the 500-year flood event, or worst damage scenario. For those that do not meet this level of protection, the plan must include an action to meet this criterion or explain why it is not feasible to do so. By reviewing the list, the jurisdictions could identify additional mitigation actions related to the critical facilities found in the municipality.
- Identifying mitigation initiatives that have reasonable potential to be accomplished within the lifespan of the County HMP (five years), including both FEMA-eligible projects and those projects using funds from non-FEMA sources.

Jurisdictional Annexes

While the jurisdictional annex format is designed to document and assure local compliance with the DMA 2000 regulations, its greater purpose and function includes:

- Providing a locally-relevant synthesis of the overall mitigation plan that can be readily presented, distributed, and maintained.
- Facilitating local understanding of the community's risk to natural hazards.
- Facilitating local understanding of the community's capabilities to manage natural hazard risk, including opportunities to improve those capabilities.
- Facilitating local understanding of the efforts the community has taken, and plans to take, to reduce their natural hazard risk.
- Facilitating the implementation of mitigation strategies, including the development of grant applications.
- Providing a framework by which the community can continue to capture relevant data and information for future HMP updates.

Each jurisdiction's annex is intended to be a *living document* and will continue to be improved as resources permit. As such, its design is intended to promote and accommodate continued efforts to maintain the annex to be current and to improve the effectiveness of the annex as the key tool, reference, and guiding document by which the jurisdiction will implement hazard mitigation locally.

The following provides a description of the various elements of the jurisdictional annex.

Section 9.X.1: Hazard Mitigation Plan Point of Contact: Identifies the hazard mitigation planning primary and alternate(s) contacts, as identified by the jurisdiction.

Section 9.X.2: Municipal Profile: Provides an overview and profile of the jurisdiction, including an identification of areas of known and anticipated future development and the vulnerability of those areas to the hazards of concern.

Section 9.X.3: Growth and Development Trends: A breakdown of building permits given, within or outside of the regulatory floodplain and an identification of areas of known and anticipated future development and infrastructure and the vulnerability of those areas to the hazards of concern.

Section 9.X.4: Capability Assessment: Provides an inventory and evaluation of the jurisdiction's tools, mechanisms, and resources available to support hazard mitigation and natural hazard risk reduction. Within the



municipal annexes, tables provide an inventory of the municipality's planning, regulatory, administrative, technical, and fiscal capabilities. Further, another table identifies the municipality's level of participation in state and federal programs designed to promote and incentivize local risk reduction efforts.

- **National Flood Insurance Program (NFIP):** Documents the NFIP as implemented within the jurisdiction. This summary was based on surveys prepared by or interviews conducted with the NFIP Floodplain Administrators for each NFIP-participating community in the county. This subsection identifies actions to enhance implementation and enforcement of the NFIP within the community.
- **National Flood Insurance Program (NFIP) Summary:** Provides NFIP summary statistics for the jurisdiction.
- **Integration of Hazard Mitigation into Existing and Future Planning Mechanisms:** Identifies how the jurisdiction integrated hazard risk management into their existing planning, regulatory, and administrative framework (*integration capabilities*) and how they intend to promote this integration (*integration actions*). Further information regarding federal, state, and local capabilities can be found in the Capability Assessment portion of Section 6 (Mitigation Strategy).
- **Evacuation, Sheltering, Temporary Housing, and Permanent Housing:** Identification of evacuation routes, sheltering locations, and temporary and permanent housing solutions.

Section 9.X.5: Natural Hazard Event History Specific to the Municipality: Identifies hazard events that caused significant impacts within the jurisdiction, including a summary characterization of those impacts as identified by the jurisdiction. The documentation of events and losses is critical to supporting the identification and justification of appropriate mitigation actions, including providing critical data for benefit-cost analysis. This *inventory* of events and losses is a work-in-progress and will continue to be improved as resources permit. As such, the lack of data or information for a specific event does not necessarily mean that the jurisdiction did not suffer significant losses during that event.

Section 9.X.6: Hazard Ranking and Jurisdiction-Specific Vulnerabilities: Provides information regarding each plan participant's vulnerability to the identified hazards. Full data and information on the hazards of concern, the methodology used to develop the vulnerability assessments, and the results of those assessments that serve as the basis of these local risk rankings may be found in Volume 1, Section 5 (Risk Assessment).

- **Critical Facilities Flood Risk:** Identifies potential flood losses to critical facilities in the jurisdiction based on the flood vulnerability assessment process presented in Section 5 (Risk Assessment).
- **Hazard Risk Ranking:** Identifies and characterizes the broad range of hazards that pose risk to the entire planning area; however, each jurisdiction has differing degrees of risk exposure and vulnerability aside from the whole. The local risk ranking serves to identify each jurisdiction's degree of risk to each hazard as it pertains locally, supporting the appropriate selection and prioritization of initiatives that will reduce the highest levels of risk for each community.
- **Identified Issues:** Presents other specific hazard vulnerabilities as identified by the jurisdiction.

Section 9.X.7: Mitigation Strategy and Prioritization: Discusses and provides the status of past mitigation actions and status, describes proposed hazard mitigation initiatives, and prioritization.

- **Past Mitigation Initiative Status:** Where applicable, reviews progress of the jurisdiction's prior mitigation strategy, identifying the disposition of each prior action, project, or initiative in the jurisdiction's updated mitigation strategy. Other completed or on-going mitigation activities that were not specifically part of a prior local mitigation strategy would be included in this sub-section.
- **Proposed Hazard Mitigation Initiatives for the Plan Update:** Table 9.X-11 presents the jurisdiction's updated mitigation strategy. As indicated, applicable mitigation actions, projects, and initiatives are



further documented on an Action Worksheet, which provides details on the project identification, evaluation, prioritization, and implementation process. Table 9.X-12 provides a summary of the local mitigation strategy prioritization process discussed in Section 6 (Mitigation Strategy).

Section 9.X.8: Proposed Mitigation Action Types: A Matrix Table of the proposed mitigation actions by hazard and FEMA and CRS Category.

Section 9.X.9: Staff and Local Stakeholder Involvement in Annex Development: Provides details on which departments were involved throughout the development of the jurisdictional annex. Plans developed with the participation of the widest range of departments, stakeholders, and persons familiar with the jurisdiction should be involved in the development of the jurisdictional annexes. Further detail is provided in Section 3 (Planning Process), Section 9 (Jurisdictional Annexes), and Appendix B (Participation Matrix).

Section 9.X.10: Hazard Area Extent and Location Map: Includes a map (or series of maps) illustrating identified hazard zones, critical facilities, and areas of NFIP Repetitive Loss/Severe Repetitive Loss (RL/SRL) for each facility. Further, these maps show areas of known or anticipated future development, as available and provided by the jurisdiction.

Action Worksheets: Provides each municipality with a more developed starting point for project implementation should funding become available. Following NYS DHSES HMP Standards Guide, each municipality developed a minimum of two action worksheets. Workshops and additional meetings (in person, by email, or by teleconference) to complete the jurisdictional annexes were held with the Steering and Planning Committees throughout the planning process. In summary, all participating communities and the county completed the planning partner expectations and annex-preparation process. Details regarding these meetings are described further in Sections 3 (Planning Process) and 6 (Mitigation Strategy). Completed jurisdictional annexes are presented in Section 9 (Jurisdictional Annexes).

8.2.2 Coverage Under the Plan

Of the planning partners identified during the planning process, 29 fully met the participation requirements specified by the Steering Committee. Planning partners not having met principal requirements including completion of the jurisdictional data collection worksheets, completion of the jurisdictional annex, or participation in workshops or individual support meetings. Those that did not meet the requirements will not be able to seek FEMA or NYS DHSES approval at the time of plan submittal nor will they be eligible to obtain FEMA mitigation grant funding. Those jurisdictions can choose to complete their annex and adopt at a later time, working with Chenango County and NYS DHSES to ensure completeness. Any non-participating local government within the Chenango County planning area can “dock” to this plan in the future following the linkage procedures defined in Appendix K (Linkage Procedures).

Table 8-2 lists the status of each jurisdiction, whether or not they submitted letters of intent to participate, and their ultimate status in this plan update. Appendix B (Participation Matrix) and Appendix C (Meeting Documentation) provide details on participation and meeting attendance.



Table 8-2. Jurisdictional Status

Municipality	Letter of Intent to Participate Date	Attended Workshops and/or Meetings?	Provided Update on Past Projects	Submitted Mitigation Actions for Current Plan	Seeking Approval for Adoption (meets requirements)
Chenango County	N/A	X	X	X	X
Afton, Town of	5/13/2020	X	X	X	X
Afton, Village of	4/14/2020	X	X	X	X
Bainbridge, Town of	5/13/2020	X	X	X	X
Bainbridge, Village of	3/9/2020	X	X	X	X
Columbus, Town of	4/13/2020	X	X	X	X
Coventry, Town of	4/9/2020	X	X	X	X
German, Town of	4/27/2020	X	X	X	X
Greene, Town of	3/23/2020	X	X	X	X
Greene, Village of	4/16/2020	X	X	X	X
Guilford, Town of	3/23/2020	X	X	X	X
Earlville, Village of	3/30/2020	X	X	X	X
Lincklaen, Town of	3/9/2020	X	X	X	X
McDonough, Town of	4/1/2020	X	X	X	X
New Berlin, Town of	3/9/2020	X	X	X	X
New Berlin, Village of	3/9/2020	X	X	X	X
North Norwich, Town of	3/23/2020	X	X	X	X
Norwich, City of	4/27/2020	X	X	X	X
Norwich, Town of	6/4/2020	X	X	X	X
Oxford, Town of	4/27/2020	X	X	X	X
Oxford, Village of	5/13/2020	X	X	X	X
Pharsalia, Town of	4/14/2020	X	X	X	X
Pitcher, Town	3/25/2020	X	X	X	X
Plymouth, Town of	3/9/2020	X	X	X	X
Preston, Town of	3/9/2020	X	X	X	X
Sherburne, Town of	3/27/2020	X	X	X	X
Sherburne, Village of	3/23/2020	X	X	X	X
Smithville, Town of	4/2/2020	X	X	X	X
Smyrna, Town of	4/14/2020	X	X	X	X
Smyrna, Village of	4/15/2020	-	-	-	-



9.1 Chenango County

This section presents the jurisdictional annex for the County. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the County participated in the planning process; an assessment of the County's risk and vulnerability; the different capabilities utilized in the County; and an action plan that will be implemented to achieve a more resilient community.

9.1.1 Hazard Mitigation Planning Team

The following individuals have been identified as the County's hazard mitigation plan primary and alternate points of contact.

Table 9.1-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Shane H. Butler, Director of Planning 5 Court Street, Norwich, NY 13815 607-337-1640 shaneb@co.chenango.ny.us	Colleen Bradley, Planner 5 Court Street, Norwich, NY 13815 607-337-1640 cbradley@co.chenango.ny.us

9.1.2 Municipal Profile

Please refer to Section 4, Volume I of this Plan for details on Chenango County's population, location, climate, history, growth and development.

9.1.3 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 understanding a jurisdiction's overall risk to its hazards of concern. The jurisdictional annexes for each municipality summarize recent and expected future development trends, including major residential/commercial development and major infrastructure development. The Chenango County Department of Planning and Development and the Planning & Economic Development Committee plays a vital role in promoting economic vitality, environmental integrity and strong communities.

9.1.4 Capability Assessment

An inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies was developed for the County. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.



- Information on National Flood Insurance Program (NFIP) compliance.

Areas where mitigation is currently integrated are summarized in this Capability Assessment. Chenango County identified specific integration activities that will be incorporated into procedures are included in the updated mitigation strategy. Refer to Appendix G for the results of the planning/policy document review and the answers to integration survey questions.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the County and where hazard mitigation has been integrated.

Table 9.1-2. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	Regulated at Local and State Levels	State, Local	Local Code Department	Yes	Yes	N/A
Comment: NYS Uniform and Energy Code 2020; Regulated at local and state levels.							
Zoning Code	Yes	Municipal Code	Local	Local Zoning Board of Adjustment	No	Yes	N/A
Comment: The Towns of Afton, German, Greene, Norwich, Oxford, Smithville and Smyrna, the City of Norwich, and the Villages of Afton, Bainbridge, Greene, New Berlin, Oxford, and Sherburne all have zoning codes.							
Subdivision Regulations	Yes	Municipal Code	Local	Local Board	No	Yes	N/A
Comment: Most municipalities in the County have subdivision regulations.							
Stormwater Management	Yes	Water Quality Protection and Restoration Program	Local	Performed at the local level	Yes	Yes	N/A
Comment: Stormwater Management Regulations are performed at the local level and varies by municipality.							
Post-Disaster Recovery	No	-	-	-	No	No	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	Yes	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	Yes	Regulated at local level	Local	Local Planning Board	No	Yes	N/A
Comment: Each jurisdiction manages their own growth and development, pursuant to their local codes.							
Site Plan Review	Yes	Regulated at local level	Local	Local Planning Board/ County	No	Yes	N/A



SECTION 9.1: Chenango County

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
				Planning & Development			
Comment: Over half of the municipalities have Site Plan Review or Zoning administered at the local level. The County Planning & Development Department performs 239 Reviews for all municipalities.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	NYSDEC	Yes	Yes	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	No	Regulated at local level	Federal, State, Local	County Building Inspector supports municipalities	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: This is performed at the local level in Chenango County. While the County is not an NFIP community, under MOAs with various jurisdictions, the County building inspector serves as local NFIP Floodplain Administrator							
Municipal Separate Storm Sewer System (MS4)	No	-	Federal	-	Yes	No	-
Comment: There are no MS4 systems within Chenango County.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes	Yes	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	Yes	-	County Planning	-	No	Yes	-
Comment: Chenango County became a registered Climate Smart Community in March 2021.							
Disaster Recovery Ordinance	No	-	-	-	No	No	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	No	2021-Chenango County-001
Comment:							
Other	No	-	-	-	-	-	-
Comment:							
Planning Documents							
Comprehensive Plan	Yes	Guiding Chenango, Adopted 2016	County	Planning, County Board of Supervisors	No	Yes	N/A
Comment: Goals of the 2016 Comprehensive Plan include expansion of residential water supplies, minimizing water contamination hazards, utilizing the mitigation measures identified in the Hazard Mitigation Plan, effective land use and growth management to prevent loss to natural resources, preserve wetlands for recreational and flood control purposes, discourage development within the 100-year floodplain, promoting the FEMA CRS system, implementing and utilizing the measures found within the Hazard Mitigation Plan, updating the HMP on a 5-year cycle, and encouraging renewable energy sources.							
Capital Improvement Plan	Yes	Multi-year budget, revised annually	County and Local	Various Departments, Board of Supervisors	No	Yes	N/A
Comment: The 2020 Chenango County Budget includes line items for bioterrorism preparedness including disaster preparation coordinator, conservation of public lands, road maintenance and construction, snow-removal, and extreme winter recovery services.							



SECTION 9.1: Chenango County

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Disaster Debris Management Plan	No	-	-	-	No	No	2021-Chenango County-002
Comment:							
Floodplain or Watershed Plan	Yes	Upper Susquehanna River Watershed; local floodplain regulations	County, Local	Chenango County Soil and Water Conservation District	No	Yes	N/A
Comment: Approximately 98% of Chenango County is located within the Upper Susquehanna River watershed. The Chenango County SWCD implements projects to minimize nutrient and sediment pollution from agricultural and municipal pollution sources by implementing best practices through Comprehensive Nutrient Management Plans (CNMP) improvements, riparian buffers, and water management systems.							
Stormwater Plan	Yes	Water Quality Protection and Restoration Program	Federal, State, Local	Performed at the local level	Yes	Yes	N/A
Comment:							
Open Space Plan	No	-	-	-	Yes	No	-
Comment:							
Urban Water Management Plan	No	-	-	-	No	No	-
Comment:							
Habitat Conservation Plan	No	-	-	-	No	No	-
Comment:							
Economic Development Plan	Yes		Local	Local municipal function	No	No	-
Comment: Commerce Chenango is the Economic Development Agency for Chenango County.							
Shoreline Management Plan	N/A	-	-	-	Yes – if coastal	-	-
Comment:							
Community Wildfire Protection Plan	Yes	Not indicated	Regional, Local	Chenango County Fire and Emergency Services	No		
Comment: Not that encompasses the entire County.							
Forest Management Plan	No	-	-	-	No	No	-
Comment:							
Transportation Plan	Yes	Coordinated Transportation Plan, 2019	County	Planning	No	Yes	N/A
Comment: Goals of the 2019 Chenango County Coordinated Transportation Plan that incorporate hazard mitigation concepts include addressing the issue of first mile/last mile and other transportation gaps in the County, expanding public transportation services, and addressing issues for emergency transport.							
Agriculture Plan	Yes	Agriculture & Farmland Protection Plan, 2012	County	Planning	No	Yes	N/A



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: The 2012 Agriculture and Farmland Protection Plan address the role of agriculture in the county and the importance of protecting lands, water quality, and leveraging land use planning mechanisms to protect lands. Objectives of the plan include using agricultural lands to lessen the impacts of floodwaters as a natural flood control measure, and preventing undesirable impacts of natural gas incidents.							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	Chenango County EMPs	State, County, Local	Chenango County Fire and Emergency Services	Yes	Yes	N/A
Comment:							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	-	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	Yes	Defined in Continuity of Operations Plan (COOP)	Local, State	Various Department	No	No	2021- Chenango County-001
Comment:							
Continuity of Operations Plan	Yes	Not Indicated	Local, State	Various Department	No	-	-
Comment:							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other	Yes	-	-	-	No	-	-
Comment: <ul style="list-style-type: none"> Hazardous Material (Haz-Mat) Response Plan. Adopted November 2004 Fire & Mutual Aid Plan. Adopted 1961 – Latest Revision January 2020 Emergency Medical Services Plan. Adopted 1996 – Latest Revision June 2008 							

Table 9.1-3. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Does your jurisdiction issue development permits? - If no, who does? If yes, which department?	Yes, Chenango County Code Enforcement for building permits.
Does your jurisdiction have the ability to track permits by hazard area?	Yes, Chenango County Code Enforcement for building permits
Does your jurisdiction have a buildable lands inventory?	No. Buildout varies by municipality.



Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
-If yes, please describe briefly.	
-If no, please quantitatively describe the level of buildout in the jurisdiction.	

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the County.

Table 9.1-4. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Department
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	Environmental Management Council – the council will serve as the County’s Climate Smart Communities Task Force
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Commerce Chenango
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	Plan adopted Aug 1961, Revisions Jan 2020
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Chenango County Planning Dept.; Chenango County D.P.W.
Engineers or professionals trained in building or infrastructure construction practices	Yes	Chenango County D.P.W., Chenango County Code Enforcement
Planners or engineers with an understanding of natural hazards	Yes	Chenango County Planning Dept.; Chenango County D.P.W.
Staff with expertise or training in benefit/cost analysis	Yes	Multiple Departments
Professionals trained in conducting damage assessments	Yes	Chenango County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Chenango County Planning Dept.; Chenango County D.P.W.; Chenango County 911 Center; Chenango County Soils & Water; County Real Property Tax
Scientist familiar with natural hazards	Yes	Chenango County Soils & Water; Chenango County Emergency Management
NFIP Floodplain Administrator (FPA)	Yes	Provide service to municipalities with MOU
Surveyor(s)	Yes	Chenango County D.P.W.
Emergency Manager	Yes	Chenango County Fire Rescue and Emergency Services
Grant writer(s)	Yes	Multiple Departments
Resilience Officer	No	-
Other	No	-

Fiscal Capability

The table below summarizes financial resources available to the County.

Table 9.1-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes



Financial Resources	Accessible or Eligible to Use (Yes/No)
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	Yes

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the County.

Table 9.1-6. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes
Personnel skilled or trained in website development?	Yes
Hazard mitigation information available on your website; if yes, describe	Yes
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Not specifically but could.
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Hyper-Reach/Notify Chenango, Social Media, Emergency Management Smartphone App
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango, Social Media, Emergency Management Smartphone App
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No, individual schools have these specific to their district.
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the County.

Table 9.1-7. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	Not applicable	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Not applicable	-	-
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	Yes	N/A	2018



Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Firewise Communities Classification	No	NP	N/A
Other: NYSERDA Clean Energy Community	Yes	N/A	2019

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.1-8. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

Management and regulation of the regulatory floodplains are done at the local level. Refer to the individual jurisdictional annexes for details on the NFIP for each municipality.

Additional Areas of Existing Integration

- **Comprehensive (Land Use) Planning:** The County updated their Comprehensive Plan in 2016. The Plan specifically identified that the 2008 HMP and information from the concurrent HMP update was used in the development of the Comprehensive Plan update, and includes information on the 2006 and 2011 flooding, and updated floodplain mapping.
- **Comprehensive Emergency Management Plan:** The County updated their Comprehensive Emergency Management Plan (CEMP) in July 2011, which specifically references the 2008 HMP as well as the concurrent HMP Update.
- **Highway Department:** The Highway Department has a revolving (5-10 year) program of maintaining and improving all county infrastructure, including roads, bridges and related stormwater management



systems. Whenever stormwater management systems (culverts) are repaired or replaced, they are routinely upsized. The Department leverages available 406 Mitigation opportunities when repairing disaster-damaged infrastructure.

- **Natural Gas Development:** The County Department of Planning and Development maintains a Natural Gas webpage (<http://www.co.chenango.ny.us/planning/natural-gas/>) that includes links to the activities of the County Natural Gas Advisory Committee, and the Four County Natural Gas Collaborative (Chenango, Otsego, Delaware and Madison Counties), as well as mitigation strategies Chenango municipalities can implement to address some of the impacts (primarily heavy vehicle traffic over local roads, and noise) of natural gas development.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability. Refer to Section 4 (County Profile) for an overview of evacuation, sheltering, temporary housing, and permanent housing.

Evacuation Routes

Chenango County Emergency Management notes that there are no specific evacuation routes identified in the County, as hazard conditions (e.g. flooding) is unpredictable. As such Hyper-Reach and Notify Chenango alerts are sent to residents advising them of evacuations, as necessary, along with routes to travel. Similarly, residents should obtain real-time information through such sources in the event that sheltering is needed, as shelters are opened on an event-specific basis.

While there are no official evacuation routes in Chenango County, the County can use major roadways to evacuate residents. These routes include State Routes 23, 26, and 206 (East and West) and State Route 12 and County Route 32 (North and South). Figure 4-24 in Section 4 (County Profile) shows potential evacuation routes in the County.

Sheltering

With support and cooperation of the American Red Cross and local jurisdictions, the County references an inventory of suitable shelter locations and can assist with the coordination and communication of shelter availability as necessitated by the execution of local municipal emergency operation plans. Figure 4-18 in Section 4 (County Profile) provides a map that shows the shelter locations in the County.

Temporary Housing

Through the Department of Social Services, Chenango County has agreements with Super 8, Norwich Motor Lodge and Red Roof Inn for placement in the event of an emergency. Table 4-15 in Section 4 (County Profile) lists the facilities identified by Chenango County and its municipalities for locations that can be used for temporary housing.

Permanent Housing

To support identification of potential sites suitable for relocating houses out of hazard areas (i.e., the floodplain) or building new homes once properties in hazard areas or the floodplain are acquired, the County performed a buildable parcel analysis. The analysis identified potential areas for post-disaster development in accordance with the 2017 NYSDHSES Hazard Mitigation Planning Standards Guide requirement “to identify long-term housing options for relocating displaced residents to maintain post-disaster social and economic stability”. The



County analysis provides an indication of vacant land suitable for development. In this case, vacant land is defined as a parcel that is classified as vacant and is located outside the following hazard areas:

- 1) FEMA floodplain.
- 2) wetlands.
- 3) federal, state and county park land.
- 4) utility public land
- 5) land that has steep slopes (>15% gradient) without consideration of ownership or availability.

Refer to Figure 4-23 in Section 4 (County Profile) for a map that shows locations of potential long-term housing in the County.

9.1.5 Hazard Event History Specific to the County

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The County's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. For details of hazard events that impacted the County, refer to Volume I, Section 5 of this plan.

9.1.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the County's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).



The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.1-9. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Chenango County Highway Department	County Building	Yes	Yes	2021-Chenango County-003
Chenango County Office Building	County Building	No	Yes	2021-Chenango County-004

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the County. The County has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the County indicated the following:

- Floods are a frequent occurrence in the County and is a major concern for the County and many municipalities.
- Severe storms are a major concern for residents in the County, who experience frequent power outages as a result of these storm types.
- While there is high exposure to wildfires due to the WUI, event history is minimal, therefore the risk was reduced to medium.
- Although there are no additional wells being drilled in the County, there are still active natural gas wells, and the Steering Committee felt it was important to continue to include natural gas accidents in the 2021 Update as a hazard of concern.

Table 9.1-10. Hazard Ranking

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire*
Medium	Medium	Medium	High	Medium	Medium	Medium	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The County changed the initial ranking of this hazard based on event history, experience, and feedback from the County

Identified Issues

The County has identified the following vulnerabilities:





- Ongoing issue of erosion along the eastern bank of the Susquehanna River in area north of NYS 206 and CR 39 intersection, creating potential of compromising integrity of road base by undermining CR 39. See mitigation action # 2021-Chenango County-010.
- County DPW identifies their biggest ongoing struggle is the regulatory restrictions restricting their ability to clean stream and riverbeds around structures, annually or at least every other year, to protect their structures and support the proper flow of floodwaters.
- Lack of emergency generator for the County Office Buildings. This would allow essential operations to remain open during a power outage event. This would prevent data loss for Information Technology and prevent vaccine spoilage for Public Health Department. See mitigation action # 2021-Chenango County-006.
- Broadband connection throughout the County Departments both in the County Office Building and outside buildings is poor.
- Lack of cell phone coverage in many areas throughout the County.

Specific areas of concern based on resident response to the County Hazard Mitigation Citizen survey are included in the annexes throughout section 9 (Jurisdictional Annexes).

9.1.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the County's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.1-11. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
Chenango-1 (Former CC-3)	Backup Power Sources to County Buildings	All Hazards	Emergency Management, Chenango County DPW	Provide backup power sources to the County office building and nursing homes in the County.	In Progress	Cost	\$200,000	Chenango County has been discussing the need for a building upgrade. Discussions regarding a backup generator have been entertained but due to COVID-19, the status of the building project is in the air.
						Level of Protection		
						Damages Avoided; Evidence of Success	Building resiliency, loss of Public Health medical supplies, and potential data losses in Information Technology.	
Chenango-2 (Former CC-5)	Develop and implement an enhanced all-hazards, public outreach / education / mitigation information program on natural hazard risks and what they can do in the way of mitigation, preparedness (including flood insurance), and response in the event of an emergency. This program will: <ul style="list-style-type: none">• Provide seasonal education, notification and warnings (flooding, severe storms, structural and wildfires) via the county webpages, newsletters, mobile application and other media.• Prepare and distribute the Emergency Preparedness booklets, distributed at fairs, open houses, public offices and places of mass gathering.• Promote the HyperReach Emergency Notification System, as well as the County public education and notification application (supports evacuation and sheltering notification and instructions).• Continue to hold Community Preparedness classes for the public.• Implement a local public awareness and education program for floodplain residents.• Promote “Firewise” programs in the County (see also Chenango-7). In addition, the County will work with municipalities to provide outreach to special purpose districts (e.g. school districts, fire districts) and private owners of critical facilities that have been identified as specifically vulnerable (e.g. within an NFIP-delineated 100- or 500-year floodplain) explaining their risk and identifying mitigation options, including the availability of grant funding. This outreach shall identify the need to protect critical facilities to the 500-year event or “worst damage scenario”.							
	See above	All Hazards	Planning Department, Emergency Management, Chenango County DPW, Public Health, Office of the Aging, Cooperative	See above	In progress, continuously.	Cost	-	This is part of the County’s daily operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



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Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
			Extension, NYS DHSES, FEMA, and municipalities					
Chenango-3 (Former CC-7)	Where appropriate support retrofitting or relocation of structures located in flood-prone areas, focusing on Repetitive Loss and Severe Repetitive Loss properties. At this time there are no County structures known to have significant flood vulnerability, however the County will continue to promote and support local efforts to mitigate public and private structures. Efforts to mitigate critical facilities shall recognize Federal and State directives for protection to the 500-year event or "worst damage scenario". See Action Worksheet.							
	See above	Flood, Severe Storm	Chenango County Planning Department, Chenango County Building Codes Enforcement, Chenango County DPW	See above	Ongoing Capability	Cost	-	This is part of the County's daily operations
						Cost	-	
						Cost	-	
Chenango-4 (Former CC-11)	Continue to support opportunities for Chenango Weatherization Program	Severe Winter Storms, Extreme Temperatures	OFC, Chenango County	Opportunities for Chenango (OFC) is a community action agency, offering home weatherization, first-time home ownership, well/septic upgrades and mobile home replacement programs. These programs, supported through NYS Community Development grants acquired with the assistance and support of Chenango County, providing an opportunity for	Ongoing Capability	Cost	-	This is part of the County's daily operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



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Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				County residents to live in a safe environment.				
Chenango-5 (Former CC-12)	Conduct tree trimming along roadways; designate snow routes and strengthen critical road sections and bridges throughout the county system of 308 centerline miles of roadway and approx. 138 bridge structures. Efforts to mitigate critical infrastructure shall recognize Federal and State directives for protection to the 500-year event or “worst damage scenario”. These efforts support countywide emergency management (response) capabilities, including the maintenance of routes that may be used to facilitate evacuations and other emergency support functions. See Action Worksheet.							
	See above	Severe Storms, Severe Winter Storms	Chenango DPW, Chenango county Emergency Management	See above	Ongoing Capability	Cost	-	This is part of the County’s daily operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
Chenango-6 (Former CC-13)	When designing planning projects, the County DPW and Chenango County Soil and Water Conservation District (SWCD) shall continue to incorporate Best Management Practices (BMPs) that mitigate localized flooding and drought situations. These design practices include the establishment of wetlands, and water holding areas (detention/retention) or sedimentation basins which are designated to capture or retain water and slowly release it back into the environment. These mitigation efforts shall include the consideration of protection to the 500-year event or “worst damage scenario”.							
	See above	Flood; Drought	Chenango County DPW, Chenango County Soil/Water	See above	Ongoing Capability	Cost	-	This is part of the County’s daily operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
Chenango-7 (Former CC-15)	Promote “Firewise” Programs in the County	Wildfire	Chenango County Emergency Management, Jurisdictional Fire Districts, NYS Forestry	Promote “Firewise” Programs in the County	In Progress	Cost	-	Chenango County is not currently participating in the Firewise Program. See mitigation action # 2021-Chenango County-008.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
Chenango-8	Continue to work the United States Army Corps of Engineers (ACOE), FEMA, NYS DHSES to address the ongoing issue of erosion along the eastern bank of the Susquehanna River in area north of NYS 206 and CR 39 intersection, creating potential of compromising integrity of road base by undermining CR 39. The full scope of the problem starts in Otsego and Delaware counties, continues through General Clinton Park and 206/39 intersection in Town of Bainbridge, and into Afton, some 10-15 miles. Streambank erosion in the area of the 206/39 intersection in Town of Bainbridge is now within 10-15 feet of CR 39. Assure that any mitigation addresses the 500-year flood event or “worst damage scenario”. These efforts support countywide emergency management (response) capabilities, including the maintenance of routes that may be used to facilitate evacuations and other emergency support functions. See Action Worksheet.							
	See above					Cost	-	



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Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Level of Protection	-	
		Flood, Severe Storms, Severe Winter Storms	County, ACOE, FEMA, NYS DHSES	See above	Ongoing Capability	Damages Avoided; Evidence of Success	-	Continue to address erosion concerns as 2021-Chenango County-010
Chenango- 9	Arrange/facilitate and/or promote regional workshops, trainings and continuing education (prepared and offered by others)	All Hazards	Chenango County Department of Planning and Development with support of the Department of Code Enforcement for training and workshops offered by NYSSFMA, NYS DHSES, NYSDEC, FEMA, ISO	NFIP for Insurance Agents, Lending Institutions and Realtors, Community Rating System – limited promoting workshops or training opportunities offered by others are available, and Floodplain management and the Certified Floodplain Managers (CFM) certification	Ongoing Capability	Cost	-	This is part of the County's daily operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
Chenango- 10	Refer to the County HMP when updating the County Comprehensive Plan (integration action).	All Hazards	County Planning	Refer to the County HMP when updating the County Comprehensive Plan (integration action).	Ongoing Capability	Cost	-	This was done in the most recent plan. Efforts should continue to refer to the Hazard Mitigation Plan when the County Comprehensive Plan is updated in the future.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
Chenango- 11	StormReady Certification	Flood, Severe Storm, Severe Winter Storm	Bureau of Fire, working with other county departments and agencies and the NWS	Complete ongoing efforts to become StormReady certified, having completed Skywarn Training in 2012 and May 2014.	Complete	Cost	-	StormReady Certification was awarded in 2018.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
Chenango-12	Engineering and Construction Phase of Innovative Readiness Training (IRT) Program	All hazards	County Fire and Emergency Services along with other County Departments	County to continue to support the IRT program, which is led by branches of the U.S. military. The next phase of this program in Chenango County includes building a new fire apparatus bay at the county training center, and rewiring the electrical system at the county fairgrounds. It is noted that the county fairgrounds could be used for the post-disaster location of temporary housing, and support other disaster response and recovery functions.	Ongoing Capability	Cost	-	This is part of the County’s daily operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
Chenango-13	County-Wide Housing Location/Relocation Planning Initiative for Disaster Displaced Residents and Structures: Chenango County Fire and Emergency Services to develop and implement a program to work with all Chenango County municipalities to identify sites within the community suitable for relocation of houses out of the floodplain, or building new houses once properties in the floodplain are demolished. As part of this program, all communities will be surveyed to identify potential sites, including any pre-disaster actions that may be required to make them viable for these purposes. Further, this effort will include working with other County departments and regional and local stakeholders who own or manage potentially suitable sites (e.g. County parks) for the potential siting of temporary housing, and determining what improvements would need to be made to accommodate temporary housing (e.g. water, electric, sanitary services, bathing facilities), and that outside funding would likely be needed if such improvements were not already available.							
	It is noted that while a community may identify suitable sites for relocation, the use (including transfer of ownership) of suitable private property would be at the discretion of the property owner.							
	See above	All hazards requiring temporary or	Chenango County Fire and	See above	In Progress	Cost	-	Continue to promote the Planning Initiative as 2021-Chenango County-009
					Level of Protection	-		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		permanent relocation	Emergency Services, working with all municipalities and other County departments and agencies			Damages Avoided; Evidence of Success	-	
Chenango-14	<p>Natural Gas Development Risk Management Support: Continue provide outreach, education, land use and regulatory support to Chenango County municipalities to manage the current and future impacts and risks of natural gas development, through the following ongoing and potential activities and initiatives:</p> <ul style="list-style-type: none"> Continue to maintain and update the County Department of Planning and Development Natural Gas webpage (http://www.co.chenango.ny.us/planning/natural-gas/) that includes links to the activities of the County Natural Gas Advisory Committee, and the Four County Natural Gas Collaborative (Chenango, Otsego, Delaware and Madison Counties), as well as mitigation strategies Chenango municipalities can implement to address some of the impacts (primarily heavy vehicle traffic over local roads, and noise) of natural gas development. Land Use and Regulatory review of proposed natural gas development sites. It would be expected, due to the 239 Review process, that any major new projects would be brought before the review committee at the County level before construction began. Municipalities with zoning and site plan review regulations would submit plans for the 239 Review process primarily when the municipality regulates: storage of pipes, equipment, buildings, etc. that are regulated by NYSDEC, PSC or FERC. If and when the current moratorium on natural gas development in the NYS is lifted, work to reconvene the County Natural Gas Advisory Committee, and the Four County Natural Gas Collaborative to promote regional, county and local efforts to manage the risks and impacts of natural gas development. Continue to update, as appropriate, spill and explosion response in the County Emergency Plan. 							
	See above	Natural Gas	Chenango County Department of Planning and Development	See Above	No Progress	Cost	-	Discontinue due to ban on natural gas drilling, replace with initiative to promote alternative energy sources as 2021-Chenango County-005
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
Chenango-15	Infestation Mitigation	Infestation	CCDPD; working with NYSDEC and other state and regional stakeholders	The County shall continue to support infestation control plans for Emerald Ash Borer and mosquito spraying for West Nile that have been developed by NYSDEC.	In Progress	Cost	-	Continue to work with the NYSDEC on Infestation Management as 2021-Chenango County-007
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The County has not identified any mitigation projects or initiatives apart from those included in the in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The County participated in a mitigation action workshop on January 13, 2021 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.1-12 summarizes the comprehensive-range of specific mitigation initiatives the County would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.1-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.1-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-Chenango County-001	Post-Disaster Recovery Plan	1, 2, 6, 7	All Hazards	Problem: The County does not have a post-disaster recovery plan to coordinate response between municipalities and county departments.	No	No	Short; Within 2 years	Chenango County Planning & Development; Chenango County Bureau of Fire & Emergency Management	Low; <\$10,000	High; Ensures coordination and efficient recovery procedures	County Budget, NYS Local Government Efficiency Grant Program	Medium	LPR	PR, ES
				Solution: The Chenango County Department of Planning & Development will work with the Chenango County Bureau of Fire & Emergency Management and the County Board of Supervisors to develop a plan for post-disaster recovery. The Post-Disaster Recovery Plan will feature hazards, risk, and vulnerabilities profiled in this HMP, as well as a detailed plan to utilize county supplies and equipment to mitigate and recover more efficiently and effectively from future disasters, including a plan for evacuation, sheltering and housing, strengthening collaborations throughout the county and a plan for short and long-term recovery.										
2021-Chenango County-002	Debris Management Plan	1, 2, 3, 5, 6, 7	All Hazards	Problem: The County does not have an overarching Debris Management Plan to coordinate clean-up of debris after hazard events.	No	No	Short; Within 2 years	Chenango County Planning & Development; Chenango County Bureau of Fire & Emergency Management	Low; <\$10,000	High; Ensures coordinated plan to safely remove debris	County Budget, NYS Local Government Efficiency Grant Program	Medium	LPR	PR, ES
				Solution: The Chenango County Department of Planning & Development will work with the Chenango County Bureau of Fire &										



Table 9.1-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				Emergency Management and the County Board of Supervisors to develop a debris management plan as a framework for organizing the rapid, safe, and cost-effective separation, removal, collection, recycling, and disposal of debris after a disaster. This plan will include goals to minimize debris-related threats to public health, safety, and the environment following any hazard event.										
2021-Chenango County-003	County Highway Department Relocation	2, 3, 4, 6, 7	Flood	Problem: The County Highway Department building is located within the 1% SHFA. Solution: The County Highway Department building is an essential facility, providing support during and after disaster events and there is potential for damages to equipment and delays in essential functions of the department if impacted by flood. The County will seek funding to relocate the building to a plot of land that is outside of the 0.2% chance SFHA, as well as away from the Chenango River to eliminate flash flood risk from overtopping. Once a plot of land has been identified, the County will conduct a survey of the land to ensure it meets the criteria of the department. Flood	Yes	No	Within 5 years	Chenango County Highway Department	High	High	FEMA BRIC, FMA, HMGP	High	SIP	PP, SP



Table 9.1-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				control measures will be considered in the design to withstand all potential flood risks.										
2021-Chenango County-004	County Office Retrofitting	2, 3, 4, 6, 7	Flood	<p>Problem: The Chenango County Office Building is located within the 0.2% SFHA.</p> <p>Solution: Continuity of operations of governmental functions is essential before, during, and after a hazard event. Chenango County departments will work to conduct a flood vulnerability study of the impacts of floodwaters on the building and work together with an engineer to ensure that the best course of action for retrofitting the building be taken. This can include relocation, elevation, or other structural flood control measures.</p>	Yes	No	Within 5 years	Chenango County	High	High	FEMA BRIC, FMA, HMGP	High	SIP	PP, SP
2021-Chenango County-005	Support Alternate Energy Sources	3, 4, 7	Natural Gas	<p>Problem: Chenango County was previously reliant on natural gas well drilling and natural gas energy sources for businesses and homes.</p> <p>Solution: The Chenango County Department of Planning & Development will work with Commerce Chenango to support implementation of alternative, green energy sources throughout the county, including solar,</p>	No	No	Short; Continuous/ within timeframe of HMP	Chenango County Planning & Development, Support from Commerce Chenango	Low to support grant writing and implementation	High, Increases resiliency of County and reduces risk from natural gas hazards	NYSERDA, Municipal Budgets	Medium	LPR	PR



Table 9.1-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				wind, hydrology, as well as separate energy grids for communities. Commerce Chenango will support grant writing and project management and development for interested parties.										
2021-Chenango County-006	Backup Generators	1, 2, 3, 6, 7	All Hazards	<p>Problem: The County Office Building, as well as various nursing/senior homes and community facilities lack backup power.</p> <p>Solution: The County will seek funding to purchase generators for these facilities to ensure continuous operations. Generators will be permanent fixtures for each facility, and have automatic capabilities to eliminate power losses. Generators will also be raised or kept in locations that reduce exposure to hazards. Size and capacity for each generator will be determined on a case-by-case basis to meet the needs of each facility.</p>	Yes	No	Short, To begin acquiring generators as soon as possible	Chenango County Planning & Development	Medium-High	High, Ensures continuity of operations and eliminates power losses at critical facilities	NYS DEC, FEMA HMA, County Budget	High	LPR	PP, ES
2021-Chenango County-007	Infestation Control	1, 2, 3, 5, 6, 7	Invasive Species, Harmful Algal Bloom	<p>Problem: Invasive Species, such as the Emerald Ash Borer and mosquito threaten public lands and trees, as well as public health and safety throughout the County.</p> <p>Solution: Chenango County Environmental Health will continue to collaborate with the NYSDEC on developing</p>	No	No	Short, To begin planning within 1 year	Chenango County Environmental Health with support from NYSDEC	Medium	High, Reduces impacts and risk from multiple hazards	NYSDEC, County Budget	High	LPR, NSP	PR, NR



Table 9.1-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				and implementing infestation control plans for the Emerald Ash Borer, mosquitos and ticks, Harmful Algal Blooms, and other species that impact the county, its' crops and forests.										
2021-Chenango County-008	Support Firewise Program Participation	1, 2, 3, 5	Wildfire	Problem: There are currently no municipalities within the County that participate in the NFPA Firewise Program. Solution: The Chenango County Bureau of Fire & Emergency Management will work with the Chenango County Planning & Development, supported by Municipal Fire Departments to encourage participation in the Firewise USA program. Participation in the Firewise program allows communities to develop a framework to increase the ignition resistance of their homes and community, reducing wildfire risk through a wildfire risk assessment and an action plan for prioritized risk reduction.	No	No	Short	Chenango County Bureau of Fire & Emergency Management, Chenango County Planning & Development, with support from Municipal Fire Departments	Low	High, increases personal preparedness and readiness and awareness of fire risk to residents	USDA Forest Service, County and Municipal Budgets	High	LPR, EAP	ES, PR, PI
2021-Chenango County-009	Housing Location/Relocation Planning Initiative for Displaced Residents and Structures	All Goals	All Hazards	Problem: The County, nor any municipalities, keep a buildable land inventory of possible locations to relocate displaced residents or structures in the event of repetitive losses or proximity to hazard areas (i.e. WUI). Solution: Chenango County Planning & Development	No	No	Short, To begin land inventory within 1 year, relocations as necessary	Chenango County Planning & Development, support from Chenango County Bureau of Fire & Emergency Management	Low to conduct land analysis	High, Ensures safe growth and establishment of open space to be kept for relocation purposes	County and Municipal Budgets, NYS Department of State, FEMA FMA	High	LPR, EAP	PR, PI, SP



Table 9.1-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				will develop and implement a program to work with all Chenango County municipalities to identify sites within the community suitable for relocation of houses out of the floodplain or building new houses once properties in the floodplain are demolished. As part of this program, all communities will be surveyed to identify potential sites, including any pre-disaster actions that may be required to make them viable for these purposes. Chenango County Department of Planning & Development will assist communities in developing a county-wide buildable land inventory through GIS mapping software that can be referenced when a relocation is necessary. Further, this effort will include working with other County departments and regional and local stakeholders who own or manage potentially suitable sites (e.g. County parks) for the potential siting of temporary housing, and determining what improvements would need to be made to accommodate temporary housing (e.g. water, electric, sanitary services, bathing facilities), and that outside funding										



Table 9.1-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				would likely be needed if such improvements were not already available.										
2021-Chenango County-010	River Streambank Stabilization	1, 2, 4, 6, 7	Severe Storm, Severe Winter Storm, Flood	<p>Problem: Due to recent major flooding events in 2006, 2001, and December 2020, erosion is becoming a great concern for the county along the Susquehanna and Chenango riverbanks.</p> <p>Solution: The Chenango County Soil & Water Conservation District will work with relevant municipalities to address erosion and streambank stabilization concerns along the Susquehanna and Chenango Rivers and other streams, as reported. These projects will use environmentally sound methods to reduce erosion while not impacting fish and wildlife populations, while also ensuring that more land is not lost to erosion, especially in the Villages along the banks.</p>	No	No	Short, To begin implementing erosion control projects as soon as funding is available	Chenango County Soil & Water Conservation District	Medium-High, Dependent on needs of riverbank	High, Increases viability of communities along the rivers	FEMA BRIC, FMA, NYSDEC, Municipal Budgets	High	NSP, SIP	NR, SP
2021-Chenango County-011	Climate Smart Community Designation	1, 2, 3, 4, 5, 7	All Hazards	<p>Problem: The County is not currently participating in the NYS Climate Smart Communities Program to promote mitigation measures and resiliency to climate change.</p> <p>Solution: The Chenango County Department of Planning & Development will work towards pledging Chenango County as part of</p>	No	No	Short, The County is in progress of receiving CSC designation	Chenango County Department of Planning & Development	Low, \$5,000	High	County Budget, NYS Climate Smart Communities Grants	High	LPR	PR



Table 9.1-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				the Climate Smart Communities Certification Program. By participating in the Program, the County will have access to additional resources to implement mitigation initiatives, including strengthening riparian zones, implementing green infrastructure, and promoting alternative energy sources.										
2021-Chenango County-012	County-Wide EMS	1, 3, 5, 7	All Hazards	<p>Problem: Many communities throughout the County are only served by volunteer EMS/Fire, and there is limited capacity for the City of Norwich EMS/Fire to service the entire county during emergencies. A lack of volunteers exacerbates this issue.</p> <p>Solution: The County will investigate opportunities for a county-wide EMS system to more efficiently respond to hazards by decreasing response time to rural areas of the county and increasing overall life safety and property protection.</p>	No	No	Short, within scope of HMP	Chenango County Emergency Management	High	High, ensures life safety during all hazards	Department of State reimbursement funding & grants	High	LPR	PR, ES
2021-Chenango County-013	Training Local Officials on Updating Ordinances, Codes, and Plans	All	Flood/Dam Failure	<p>Problem: Many of the municipal codes, ordinances, and plans do not contain specifics on dam safety and hazard mitigation.</p> <p>Solution: To train local government officials including Supervisors, Code Officials and Planning and</p>	Yes	No	Ongoing	Chenango County Department of Planning & Development	Low	Increases awareness; hazard mitigation integration	County Budget	High	LPR	PR, PI



Table 9.1-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				Zoning Board members on updating and integrating dam safety and hazard mitigation efforts and information into ordinances, codes, and comprehensive plans. The training would also include using the BATool to update municipal annexes with updated hazard mitigation actions and initiatives and other pertinent information. By integrating this information, municipalities in Chenango County will become more prepared pre-disaster, and more resilient during a disaster.										

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV Community Assistance Visit

CRS Community Rating System

DPW Department of Public Works

EHP Environmental Planning and Historic Preservation

FEMA Federal Emergency Management Agency

FPA Floodplain Administrator

HMA Hazard Mitigation Assistance

N/A Not applicable

NFIP National Flood Insurance Program

OEM Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program

HMGP Hazard Mitigation Grant Program

PDM Pre-Disaster Mitigation Grant Program

BRIC Building Resilient Infrastructure and Communities

Timeline:


The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:Yes  Critical Facility located in 1% floodplainMitigation Category:



- *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 manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NSP)* – These are actions that minimize damage and losses, and also 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

CRS Category:

- *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 also 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 9.1-13. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-Chenango County-001	Post-Disaster Recovery Plan	1	1	1	1	1	1	1	1	0	1	1	1	1	1	13	Medium
2021-Chenango County-002	Debris Management Plan	1	1	1	1	1	1	1	1	0	1	1	1	1	1	13	Medium
2021-Chenango County-003	County Highway Department Relocation	0	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2021-Chenango County-004	County Office Retrofitting	0	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2021-Chenango County-005	Support Alternate Energy Sources	0	0	1	1	1	1	0	1	0	1	1	1	0	0	8	Medium
2021-Chenango County-006	Backup Generators	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021-Chenango County-007	Infestation Control	0	1	1	0	1	0	1	1	1	0	1	1	1	1	10	High
2021-Chenango County-008	Support Firewise Program Participation	1	1	1	0	1	1	1	1	1	1	0	1	1	1	12	High
2021-Chenango County-009	Housing Location/Relocation Planning Initiative	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
2021-Chenango County-010	Susquehanna River Streambank Stabilization	1	1	1	0	1	1	0	0	1	1	1	1	1	1	11	High
2021-Chenango County-011	Climate Smart Community Designation	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021-Chenango County-012	County-Wide EMS	1	1	0	0	0	0	0	1	1	1	1	1	1	1	9	High
2021-Chenango County-013	Training Local Officials on Updating Ordinances, Codes, and Plans	1	1	1	1	1	1	1	0	0	1	0	1	1	0	10	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.1.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.1-14. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak	001, 002, 006, 009, 011, 012			009	001, 002, 009, 011, 012	006, 009	009		009	001, 002, 006, 012
Drought	001, 002, 006, 009, 011, 012			009	001, 002, 009, 011, 012	006, 009	009		009	001, 002, 006, 012
Extreme Temperatures	001, 002, 006, 009, 011, 012			009	001, 002, 009, 011, 012	006, 009	009		009	001, 002, 006, 012
Flood	001, 002, 006, 009, 011, 012, 013	003, 004, 010	010	009	001, 002, 009, 011, 012, 013	003, 004, 006, 009	009, 013	010	003, 004, 009, 010	001, 002, 006, 012
Harmful Algal Bloom	001, 002, 006, 007, 009, 011, 012		007	009	001, 002, 007, 009, 011, 012	006, 009	009	007	009	001, 002, 006, 012
Invasive Species	001, 002, 006, 007, 009, 011, 012		007	009	001, 002, 007, 009, 011, 012	006, 009	009	007	009	001, 002, 006, 012
Natural Gas	001, 002, 005, 006, 009, 011			009	001, 002, 005, 009, 011, 012	006, 009	009		009	001, 002, 006, 012
Severe Storm	001, 002, 006, 009, 011, 012	010	010	009	001, 002, 009, 011, 012	006, 009	009	010	009, 010	001, 002, 006, 012
Severe Winter Storm	001, 002, 006, 009, 011, 012	010	010	009	001, 002, 009, 011, 012	006, 009	009	010	009, 010	001, 002, 006, 012
Wildfire	001, 002, 006, 008, 009, 011, 012			008, 009	001, 002, 008, 009, 011, 012	006, 008, 009	008, 009		009	001, 002, 006, 008, 012

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

**9.1.9 Staff and Local Stakeholder Involvement in Annex Development**

The County followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many jurisdiction representatives. 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. The following table summarizes who participated and in what capacity. Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.1-15. Contributors to the Annex

Name	Title	Method of Participation
Shane Butler	Planning Director	Reviewing and providing information related to capability assessment, hazard ranking, past mitigation initiatives status, critical facilities, project identification and developing the 2021 mitigation strategy.
Colleen Bradley	Planner	Reviewing and providing information related to project identification and developing the 2021 mitigation strategy.
Matt Beckwith	Emergency Management Director	Reviewing and providing information related to County Plans.
Julie Gates	Public Facilities Director	Reviewing and providing information related to building resiliency needs.
Herm Ericksen	Information Technology Director	Reviewing and providing information related to Information Technology needs.



Action Worksheet			
Project Name:	2021-Chenango County-009		
Project Number:	Housing Location/ Relocation Planning Initiative for Displaced Residents and Structures		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	The County, nor any municipalities, keep a buildable land inventory of possible locations to relocate displaced residents or structures in the event of repetitive losses or proximity to hazard areas (i.e. WUI).		
Action or Project Intended for Implementation			
Description of the Solution:	Chenango County Planning & Development will develop and implement a program to work with all Chenango County municipalities to identify sites within the community suitable for relocation of houses out of the floodplain or building new houses once properties in the floodplain are demolished. As part of this program, all communities will be surveyed to identify potential sites, including any pre-disaster actions that may be required to make them viable for these purposes. Chenango County Department of Planning & Development will assist communities in developing a county-wide buildable land inventory through GIS mapping software that can be referenced when a relocation is necessary. Further, this effort will include working with other County departments and regional and local stakeholders who own or manage potentially suitable sites (e.g. County parks) for the potential siting of temporary housing, and determining what improvements would need to be made to accommodate temporary housing (e.g. water, electric, sanitary services, bathing facilities), and that outside funding would likely be needed if such improvements were not already available.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	High, relocation eliminates risk	Estimated Benefits (losses avoided):	Ensures safe growth and establishment of open space to be kept for relocation purposes
Useful Life:	Land inventory should be updated on annual basis	Goals Met:	All Goals
Estimated Cost:	Low, \$10,000 to survey land and \$5,000 to maintain	Mitigation Action Type:	Local Plans and Regulations, Education and Awareness Program
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	To begin land inventory within 1 year, relocations as necessary
Estimated Time Required for Project Implementation:	To begin land inventory within 1 year, relocations as necessary	Potential Funding Sources:	County and Municipal Budgets, NYS Department of State, FEMA FMA
Responsible Organization:	Chenango County Planning & Development	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Land Use Planning, Smart Growth
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Municipalities perform and keep individual land inventories	\$100,000+	Potential for disconnect or mismanagement and does not allow for information sharing and relocation across municipal boundaries
	Conduct land analysis when need to relocate structure	N/A	Not cost effective or efficient, does not encourage relocation in a timely manner
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-Chenango County-009	
Project Number:	Housing Location/ Relocation Planning Initiative for Displaced Residents and Structures	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Relocation ensures safety of residents
Property Protection	1	
Cost-Effectiveness	1	Keeping a central location of buildable land is cost effective and efficient
Technical	1	County Planning has GIS capabilities
Political	1	
Legal	0	Needs owner approval
Fiscal	1	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	1	
Agency Champion	1	County Planning & Development
Other Community Objectives	1	Hazard Mitigation Planning, Land Use Planning, Smart Growth
Total	13	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	2021-Chenango County-010		
Project Number:	River Streambank Stabilization		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Storm, Severe Winter Storm, Flood		
Description of the Problem:	Due to recent major flooding events in 2006, 2001, and December 2020, erosion is becoming a great concern for the county along riverbanks.		
Action or Project Intended for Implementation			
Description of the Solution:	The Chenango County Soil & Water Conservation District will work with relevant municipalities to address erosion and streambank stabilization concerns along the Susquehanna and Chenango Rivers and other streams, as reported. These projects will use environmentally sound methods to reduce erosion while not impacting fish and wildlife populations, while also ensuring that more land is not lost to erosion, especially in the Villages along the banks.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Increases viability of communities along the rivers
Useful Life:	30 years	Goals Met:	1, 2, 4, 6, 7
Estimated Cost:	Medium-High, Dependent on needs of riverbank	Mitigation Action Type:	Natural Systems Protection, Structure & Infrastructure Projects
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	To begin implementing erosion control projects as soon as funding is available
Estimated Time Required for Project Implementation:	1-2 years	Potential Funding Sources:	FEMA BRIC, FMA, NYSDEC, Municipal Budgets
Responsible Organization:	Chenango County Soil & Water Conservation District, Chenango County Planning & Development	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Watershed Protections
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Redirect riverbanks away from development	\$10M+	Not environmentally sound, there is much development along rivers, unfeasible
	Add levees/dams to rivers to reduce flooding	\$10M+	Will disrupt water flow and wildlife habitats, and drinking water supplies, unfeasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-Chenango County-010	
Project Number:	River Streambank Stabilization	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Eliminates losses of land to erosion
Cost-Effectiveness	1	
Technical	0	May need engineering support
Political	1	
Legal	1	
Fiscal	0	
Environmental	0	Will take extra precautions to avoid environmental concerns
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm, Winter Storms, Ice Jams
Timeline	1	
Agency Champion	1	SWCD, Planning
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



9.2 Town of Afton

This section presents the jurisdictional annex for the Town of Afton. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Afton's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.2.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Afton's hazard mitigation plan primary and alternate points of contact.

Table 9.2-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
John Lawrence, Town Supervisor 204 County Road 39, Afton, NY 13730 607-639-1071, 607-639-2294 aftonsupervisor@gmail.com	None Identified
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court Street Norwich, NY 13815 607-337-1975 StevenF@co.chenango.ny.us	

9.2.2 Municipal Profile

The Town and Village of Afton are in the southeast corner of Chenango County 25 miles west of Binghamton where Interstate Highway 88 and NY Route 7 cross NY Route 41 along the Susquehanna River. The coordinates are 42°13'45"N; 75°31'29"W. The west and south boundaries of the town line border Broome County and the east town line is the borders Delaware County. The town has a total area of 46.5 square miles, 45.9 sq. miles of which is land and the rest is water.

The area was originally part of the Iroquois Indian Confederation with the Mohawk tribe spending part of the year along this part of the Susquehanna. The Mohawks sided with the British during the American Revolution and were driven out of the area by the American troops. Many of the early settlers were former soldiers paid in land for their service during the Revolutionary War. Some had originally been given land in Vermont which was disputed territory and were then given land in the Susquehanna hills instead. They were sometimes known as the Vermont Sufferers. The area was originally called Jericho and then later Bainbridge. Afton separated from Bainbridge in 1857. It took the name Afton from a line in a popular poem by Robert Burns, "Flow Gently Sweet Afton". Afton was the name of a river in Great Britain. The town wanted a name beginning with "A" because it wanted to be first alphabetically.

Former residents of note include Joseph Smith, founder of the Mormon Religion, Carlton Joseph Huntley Hayes, U.S. Ambassador to Spain from May 1942 to March 1945 and William H. Bissell, Governor of Illinois.

The Town Supervisor chairs the Town Board which also has 4 Board members. The Town Supervisor represents the Town in the County Board of Supervisors. The Village of Afton, which is part of the Town, has a Mayor



and 4 Trustees as their governing board. This governing body will assume responsibility for adoption and implementation of this plan.

According to the U.S. Census, the 2010 population for the Town of Afton was 2,851. The estimated 2018 population was 1,767, a 38.0 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 3.5 percent of the population is 5 years of age or younger and 20.6 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.2.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.2-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.2-1 at the end of this annex illustrates the geographically delineated hazard areas and the location of potential new development, where available.

Table 9.2-2. Recent and Expected Future Development

Type of Development	2015		2016		2017		2018		2019	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
Constitution Pipeline	Commercial		N/A		N/A		N/A		Discontinued/no further progress	
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.2.4 Capability Assessment

The Town of Afton performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.



- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.2.4). The Town of Afton identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy. Appendix G provides the results of the planning/policy document review and the answers to integration survey questions.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Afton and where hazard mitigation has been integrated.

Table 9.2-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Handled by County	Yes	No	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan" ¹¹ or "in accordance with a comprehensive plan." ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Planning Board	Local	Local Planning Board	No	No	N/A
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	Yes	Title 6, Ch. X,17-7,8,70	NYS DEC Permit and Federal Regulations	County	Yes	No	N/A
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Discharge Elimination System (SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	No	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	No	-	-	-	No	-	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a	Local	Local Planning Board	No	Yes	N/A
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc. <ul style="list-style-type: none"> The general standards and considerations when reviewing a site plan include; the adequacy of stormwater and drainage facilities; the adequacy, type and arrangement of trees, shrubs, and other landscaping constituting a visual and/or noise buffer between the applicant's and adjoining lands, including the maximum retention of existing vegetation; and Special attention to the adequacy and impact of structures, roadways, and landscaping in areas with susceptibility to ponding, flooding and/or erosion. Where applicable, the Applicant must indicate measures and features to comply with flood hazard and flood insurance regulations. 							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State		Yes	No	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Updated 9/9/2010	Local, State, Federal	The Town of Afton Code Enforcement Officer	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	NA
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> It is the purpose of this local law to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions. This is accomplished by elevating structures above the BFE. For residential structures within Zone A, when no base flood elevation data are available new construction and substantial improvements shall have the lowest floor (including basement) elevated at least three feet above the highest adjacent grade. When BFE data are available, then an elevation of the base flood of two feet is required. For non-residential structures, new construction and substantial improvements of any non-residential structure, together with attendant utility and sanitary facilities, shall either: (i) have the lowest floor, including basement or cellar, elevated to or above two feet above the base flood elevation; or (ii) be floodproofed so that the structure is watertight below two feet above the base flood elevation. The Town also has a separate permit for development in a Floodplain and issues a certificate of compliance.							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	State	Yes	No	N/A
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes	No	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	NYS Executive Law, Article 75	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	-	Local	-	No	No	N/A
Comment: Special Purpose Ordinance – 2010 Road Use Agreement							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	Yes	-	Local	Highway Department	No	No	N/A
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	Updated Floodplain Map 2012	Local	-	No	No	N/A
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	No	-	Local	-	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	-	-
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	Yes	2019 Farmland Protection Law	Local	?	Yes	No	N/A
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	Yes	-	Local	-	No	-	-
Comment: <ul style="list-style-type: none"> Junkyard – code enforcement Refuse Sanitary – Code enforcement Telecommunications Road Use Law 							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	Afton Emergency Operations Plan, April 2009	Local	Afton Emergency Planning Committee	Yes	No	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	-	Local	Local OEM	Yes	No	N/A



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations."							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	Emergency Operations Plan, 2009	Local	Afton Emergency Planning Committee	No	Yes	-
Comment: The Town/Village of Afton Emergency Operations Plan includes maps of hazard areas and instructions for a coordinated response during a hazard event and includes specifications for the four phases of emergency management.							

Table 9.2-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, code enforcement County does for Buildings
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No, Town owns very little land; but does know which is owned

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Afton.

Table 9.2-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		



Resources	Available? (Yes or No)	Department/ Agency/Position
Planning Board	Yes	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	DPW
Mutual aid agreements	Yes	Town of Bainbridge; Village of Afton; Town of Coventry
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	Yes	County Code Enforcement Officer
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development & Tax Dept.
Scientist familiar with natural hazards	Yes	Chenango County Soil & Water Dept.
NFIP Floodplain Administrator (FPA)	Yes	Code Enforcement officer
Surveyor(s)	Yes	County Highway Department
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Afton Fire Dept.
Grant writer(s)	Yes	County Planning & Development; Cornell Cooperative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Afton.

Table 9.2-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Local Plans - Designated for specific things
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	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-



Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Afton.

Table 9.2-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes
Personnel skilled or trained in website development?	Yes, board member administers
Hazard mitigation information available on your website; if yes, describe	Yes
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Working on developing Town Facebook Page
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Would use Website
Warning systems for hazard events; if yes, briefly describe.	Fire House Sirens; Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Schools have fire drills, evacuation plans, bomb threats, active shooters
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Afton.

Table 9.2-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable
 NP Not participating
 - Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

**Table 9.2-9. Adaptive Capacity**

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Drought	Medium
Disease Outbreak	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Afton.

Table 9.2-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Afton	12	43	\$684,885	7	-	7

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Afton has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.



Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Afton has completed Community Assistance Visits (CAV), with the most recent visit completed in 2016.

Regulatory

The community's Flood Damage Prevention Ordinance (FDPO) was last updated on September 21, 2010. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Emergency Response Plans:** Complete Emergency Disaster Recovery Plan & disseminate info thru booklet, refrigerator magnets with important #'s and on Afton website.
- **Site Plan Review – Stormwater and Floodplain Management:** When a Site Plan Review is done by the Planning Board, it is checked for runoff potential. Buildings damaged within the floodplain, even if less than 50% damaged, must be brought into 100% compliance with floodplain regulations.
- **Open Space Plans/Floodplain Management:** Acquire land that used to be Luom's trailer park & abandon house flooded in June 2006. Change land use from residential to park or wild.
- **Climate/Sustainability Actions:** The Town of Afton is participating in NYSEG municipal lighting system upgrades & energy saving devices within the town and considering upgrading the town streetlights.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

Route 88 is used as the main evacuation road because it bypasses most flood-prone areas. Route 41 going North out of the Town could also be used for evacuation. Route 7 floods often and is not recommended to be used as an evacuation route. However, evacuation routes are specific to hazard event and routes will vary according to the location and type of event.

Sheltering

The School has backup generator and has been certified by Red Cross as Shelter. Town Hall has backup generator and is not in floodplain and is large enough to hold people but does not have Red Cross certification.

Temporary Housing

Empty land behind town hall and highway 88 could be used as temporary housing location, but does not have sewage or power hookups. The Town Fair Grounds are within the floodplain.



Permanent Housing

While the Town of Afton did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.2.5 Hazard Event History Specific to the Town of Afton

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Afton's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.2-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.2-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
2016	Flood	Yes	Heavy rainfall resulted in flooding and washed out roads	Some people within Town and Village lost their homes – FEMA NFIP came but did not assist
2019	Flood	Yes	Heavy rainfall resulted in flooding and washed out roads	None

Notes:

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

9.2.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Afton's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.



Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.2-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None Identified				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Afton. The Town of Afton has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Afton indicated the following:

- Agreement with calculated rankings – no changes made

Table 9.2-13. Hazard Ranking Input

Drought	Disease Outbreak	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	High	Low	Medium	Medium	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality



Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The Fairgrounds are located in a flood-prone area.
- Rt 7 North of Afton – DOT just raised Bridge where 2 creeks come together but it still floods often. There is improved water flow under bridge but the road was not raised and might still flood, but there has been no flooding to date.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- No back up power for town as far as I know
- Town / village lacks resources to really plan (for mitigation/prevention)
- Bridge repairs, stream improvement since last floods not sufficient

9.2.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.2-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
TOA-1 (former TOA-4)	Acquire land that used to be Luom's trailer park & abandon house flooded in June 2006.	Flood	Afton Town Board, support from NYS DHSES and FEMA	Change land use from residential to park or wild. Flooding in this area is exacerbated by ice jamming on the Susquehanna.	No Progress	Cost	-	Discontinue project due to trailer park being outside of the Town's jurisdiction.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TOA-2	Promote and support non-structural flood hazard mitigation alternatives	Flooding, Severe Storms	Town Governing Body; support from NYS DHSES and FEMA	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners. Specifically identified is the residential Repetitive Loss property on State Highway 7.	Ongoing Capability	Cost	-	The Town continues to promote non-structural flood mitigation for residents within the floodplain.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TOA-3 (LOI #2438)	Community planning for the Town and Village of Afton.	All Hazards	Town and Village	Community planning for the Town and Village of Afton.	Ongoing Capability	Cost	-	The Town continues to work with the Village of Afton on community development initiatives.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TOA-4 (Old TOA-5)	Complete Emergency Disaster Recovery Plan	Severe winter storms, Flooding, Severe storms	Afton Town Board, Afton Village and other Towns	Complete Emergency Disaster Recovery Plan & disseminate info thru booklet, refrigerator magnets with important numbers and on Afton website	Complete	Cost	-	The Emergency Operations Plan was completed in 2009.
						Level of Protection	High	
						Damages Avoided; Evidence of Success	Reduces risk, ensures coordinated response	
TOA-5 (Old TOA-6)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: <ul style="list-style-type: none">NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
See Above	All Hazards	Chenango County, as supported by relevant local department leads	See Above	Ongoing Capability	Cost	-	The Town continues to support County, State, and Federally-led hazard mitigation programming and initiatives.	
					Level of Protection	-		
					Damages Avoided; Evidence of Success	-		



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Afton has not identified any mitigation projects or initiatives apart from those included in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Afton worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.2-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Afton would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.2-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.2-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Afton-001	Bumps Creek Project	1, 2, 3, 4	Flood, Severe Storm, Severe Winter Storm, Erosion	Problem: Due to heavy rains, there is continuous and ongoing flooding of homes that are along Bumps Creek. Solution: The Town of Afton Highway Department will work with contractors to increase the banking to prevent further erosion of the streambanks and reduce flooding. The Highway Department will also regularly maintain and clear debris from the creek after storms to maintain waterflow, and in the winter will watch for ice buildup and jams.	No	No	6 months – 1 year	Town of Afton Highway Department with support from private contractors	Medium	High, reduces damages to homes	FEMA HMA, FMA	High	NSP	SP
2021-T. Afton-002	Emergency Shelter and Supplies	1, 5, 6, 7	All Hazards	Problem: The Town does not currently have a sufficient emergency shelter and stock of supplies for displaced homeowners from hazard events, or during power outages. Solution: The Town will develop a temporary sheltering plan and identify locations and create a stock of supplies for residents in need.	No	No	Within 5 years	Town of Afton government	Low	High, ensures safety of displaced and vulnerable residents	Municipal Budget, FEMA HMGP	High	LPR	ES
2021-T. Afton-003	Backup Generator for Town Shelter	1, 5, 6, 7,	All Hazards	Problem: The Town will need to install an emergency generator after identifying a shelter location for residents during disaster events. Solution: The Town will seek funding to install a sufficient capacity automatic and permanent emergency generator at the new shelter. Capacity and cost will be determined once the location is finalized as part of Mitigation Action# 2021-T. Afton-002. Precautions will be made to ensure the generator is not at risk to additional hazards (i.e. elevated to eliminate potential flood risk, and secured to reduce damages from storms).	Yes	No	Within 5 years, as soon as possible	Town of Afton government	Medium-High	High	Municipal Budget, FEMA HMGP, HMA	High	SIP	ES



Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.2-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Afton-001	Bumps Creek Project	1	1	1	1	1	1	0	0	0	-1	1	1	1	0	9	High
2021-T. Afton-002	Emergency Shelter and Supplies	1	0	1	1	1	1	-1	1	1	0	1	1	1	0	9	High
2021-T. Afton-003	Backup Generator for Town Shelter	1	1	1	1	1	1	0	1	1	0	1	1	1	0	10	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.2.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.2-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak	002	003								002, 003
Drought	002	003								002, 003
Extreme Temperatures	002	003								002, 003
Flood	002	003	001						001	002, 003
Harmful Algal Bloom	002	003								002, 003
Invasive Species	002	003								002, 003
Natural Gas	002	003								002, 003
Severe Storm	002	003	001						001	002, 003
Severe Winter Storm	002	003	001						001	002, 003

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.2.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Afton followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Supervisor's Office and County Code Enforcement. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

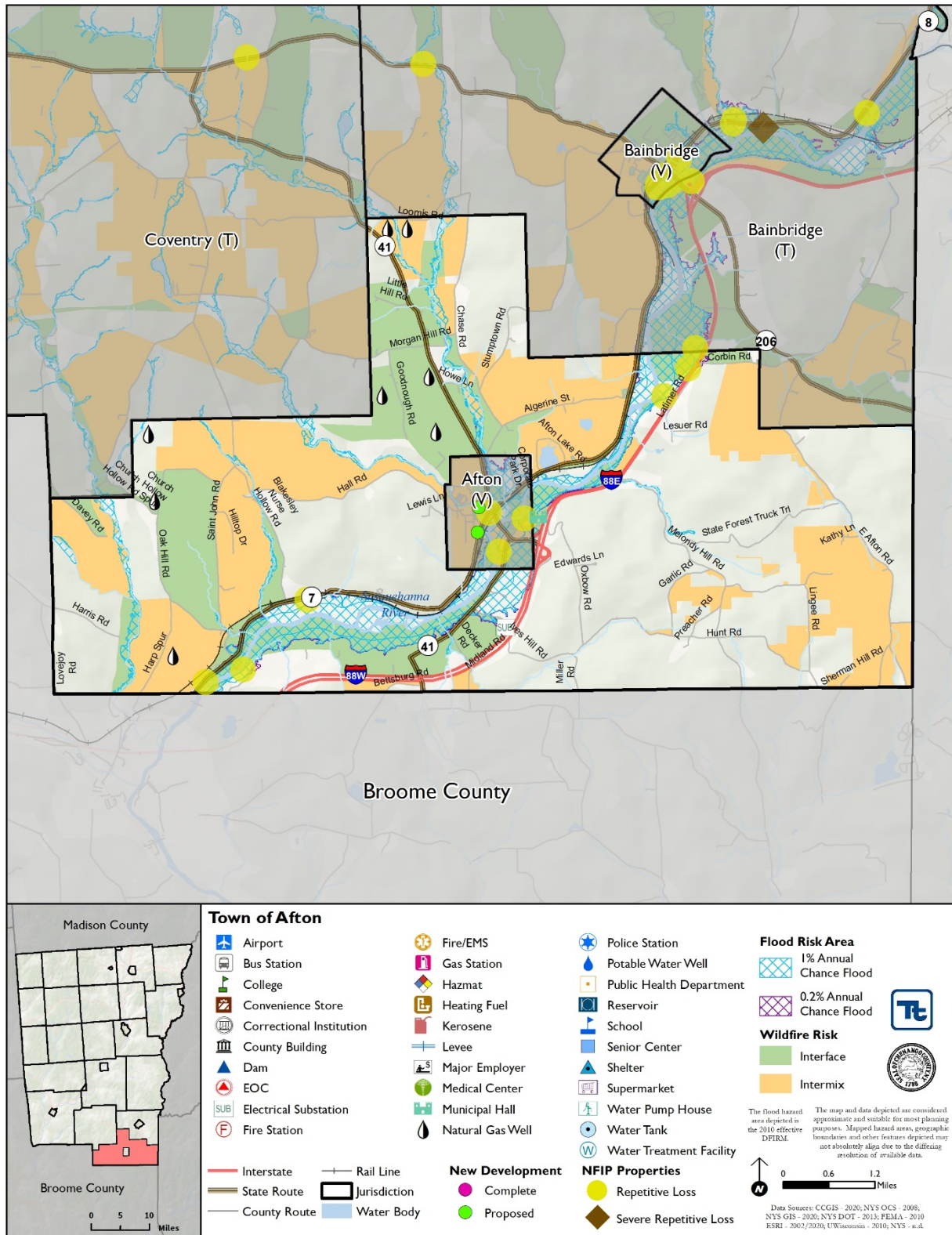
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.2.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Afton that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Afton has significant exposure. The map is illustrated below.



Figure 9.2-1. Town of Afton Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Bumps Creek Project		
Project Number:	2021-T. Afton-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm, Erosion		
Description of the Problem:	Due to heavy rains, there is continuous and ongoing flooding of homes that are along Bumps Creek.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Afton Highway Department will work with contractors to increase the banking to prevent further erosion of the streambanks and reduce flooding. The Highway Department will also regularly maintain and clear debris from the creek after storms to maintain waterflow, and in the winter will watch for ice buildup and jams.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	Reduces flood damage to homes
Useful Life:	50 years	Goals Met:	1, 2, 3, 4
Estimated Cost:	Medium	Mitigation Action Type:	NSP
Plan for Implementation			
Prioritization:	Medium	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	6 months – 1 year	Potential Funding Sources:	FEMA HMA, FMA
Responsible Organization:	Town Highway Department and support from private contractors	Local Planning Mechanisms to be Used in Implementation if any:	Economic Development, Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Buyout damaged homes	Millions	Would reduce tax base as there is no land to relocate homes to, not-cost effective, unfeasible
	Redirect creek	N/A	Creek is part of state forest and would disrupt ecosystems, need natural systems protections
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Bumps Creek Project	
Project Number:	2021-T. Afton-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	Will need grant funding
Environmental	1	
Social	0	
Administrative	-1	Town will require assistance with equipment
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Emergency Shelter and Supplies		
Project Number:	2021-T. Afton-002		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	The Town does not currently have a sufficient emergency shelter and stock of supplies for displaced homeowners from hazard events, or during power outages.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will develop a temporary sheltering plan and identify locations and create a stock of supplies for residents in need.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	High, ensures safety of displaced and vulnerable residents
Useful Life:	30 years	Goals Met:	1, 5, 6, 7
Estimated Cost:	Low	Mitigation Action Type:	LPR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	Short-term, within 5 years	Potential Funding Sources:	Municipal Budget, FEMA HMGP
Responsible Organization:	Town of Afton Government	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Provide back-up generators to all residents	N/A	Not cost-effective, only reduces impacts of power loss, unfeasible
	Build permanent shelter locations	N/A	There is not enough buildable land in the Town to build a permanent shelter
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Emergency Shelter and Supplies	
Project Number:	2021-T. Afton-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures safety of residents
Property Protection	0	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	1	No environmental concerns
Social	1	Community will support
Administrative	0	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Backup Generator for Town Shelter		
Project Number:	2021-T. Afton-003		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	The Town will need to install an emergency generator after identifying a shelter location for residents during disaster events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will seek funding to install a sufficient capacity automatic and permanent emergency generator at the new shelter. Capacity and cost will be determined once the location is finalized as part of Mitigation Action# 2021-T. Afton-002. Precautions will be made to ensure the generator is not at risk to additional hazards (i.e. elevated to eliminate potential flood risk, and secured to reduce damages from storms).		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	N/A	Estimated Benefits (losses avoided):	High, ensures safety of displaced and vulnerable residents
Useful Life:	30 years	Goals Met:	1, 5, 6, 7
Estimated Cost:	Medium-High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP once shelter is identified
Estimated Time Required for Project Implementation:	Short-term, within 5 years	Potential Funding Sources:	Municipal Budget, FEMA HMGP, HMA
Responsible Organization:	Town of Afton Government	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Add solar panels to shelter	\$500,000	Does not ensure power at all times, not cost effective
	Purchase a portable generator for the Town	\$40,000	Does not ensure continuous power supply at critical emergency facility, may not have capacity to power entire facility, not cost effective
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Backup Generator for Town Shelter	
Project Number:	2021-T. Afton-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures safety of residents
Property Protection	0	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	May need support depending on size of generator needed
Environmental	1	No environmental concerns
Social	1	Community will support
Administrative	0	
Multi-Hazard	1	All-Hazards
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



9.3 Village of Afton

This section presents the jurisdictional annex for the Village of Afton. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Village participated in the planning process; an assessment of the Village of Afton's risk and vulnerability; the different capabilities utilized in the Village; and an action plan that will be implemented to achieve a more resilient community.

9.3.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Village of Afton's hazard mitigation plan primary and alternate points of contact.

Table 9.3-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Robert Humphrey, Jr., Village Trustee 53 East Main St. Afton, NY 13730 607-639-2453 hjdierobl@aol.com	Jeffrey Butler, Village Code Enforcement Officer 128 Main St. Afton, NY 13730 607-639-2453 shirleyandjessbutler@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court Street Norwich, NY 13815 607-337-1975 StevenF@co.chenango.ny.us	

9.3.2 Municipal Profile

The Village of Afton is the commercial and residential center of the Town of Afton. The Village is on the west bank of the Susquehanna River at the junction of the junction of NYS Routes 7 and 41. The Village is 24 miles north of the City of Binghamton, N.Y. and only 170 miles west of New York City.

Afton traces its history back to the Sullivan-Clinton Expedition in 1779 to clear the Susquehanna Valley of Indians. The first settlement in the area was around 1786, and the settlement which is now Village of Afton was known as South Jericho. Afton was named for "Afton Water" as small river in Ayrshire, England and the Village was incorporated from the Town of Afton in 1892.

The Village of Afton is governed by an elected five member Village Board of Trustees, composed of a Mayor and four (4) Trustees. This governing body will assume responsibility for adoption and implementation of this plan. The Village operates a water distribution system and has two volunteer boards: Planning and Zoning Board of Appeals.

According to the U.S. Census, the 2010 population for the Village of Afton was 822. The estimated 2018 population was 986, a 20.0 percent increase from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 4.4 percent of the population is 5 years of age or younger and 27.0 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.



9.3.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.3-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.3-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.3-2. Recent and Expected Future Development

Type of Development	2014		2015		2016		2017		2018	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	1	-
Multi-Family	0	-	0	-	0	-	0	-	-	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	1	-
Total	0	0	0	0	0	0	0	0	2	0
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
Water Tank at Village Water	Utilities		N/A		105 Main Street		Wildfire Intermix Area		Proposed	
Renovation to Afton Central School	Government		N/A		29 Academy Street		Wildfire Intermix Area		Proposed	

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.3.4 Capability Assessment

The Village of Afton performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and



each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.3.4). The Village of Afton identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy. Appendix G provides the results of the planning/policy document review and the answers to integration survey questions.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Afton and where hazard mitigation has been integrated.

Table 9.3-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local, County, State	Handled by County	Yes	-	-
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	Yes	Adopted 1976	Local	Village Zoning Board of Appeals	No	No	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan" ¹¹ or "in accordance with a comprehensive plan." ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 1976	Local	Village Zoning Board of Appeals	No	No	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management	Yes	Zoning/Subdivision Regulations	Local, State	NYSDEC permits required for any major construction projects	Yes	No	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY	State	NYS Department	Yes	-	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
		Code - Article 14 §460-467		of State, Real Estate Agent			
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	Yes	-	Local	-	No	No	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a	Local	-	No	No	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	No	-	-	-	Yes	-	-
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	Adopted 6/1991, Amended 9/1/2010	Federal, State, Local	Village Floodplain Administrator	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	NA
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Flood Damage Prevention Law - Damages from flooding and erosion may be a problem to the residents of the Village of Afton and such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to: <ol style="list-style-type: none"> regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; control filling, grading, dredging and other development which may increase erosion or flood damages; regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; qualify and maintain for participation in the National Flood Insurance Program. Mitigation measures for residential structures within Zone A, when no base flood elevation data are available new construction and substantial improvements shall have the lowest floor (including basement) elevated at least three feet above the highest adjacent grade. When BFE data are available, then an elevation of the base flood of two feet is required. Mitigation measures for non-residential structures, new construction and substantial improvements of any non-residential structure, together with attendant utility and sanitary facilities, shall either: have the lowest floor, including basement or cellar, elevated to or above two feet above the base flood elevation; or be floodproofed so that the structure is watertight below two feet above the base flood elevation. The Village also has a separate permit for development in a Floodplain and issues a certificate of compliance. In order to prevent potential flood damage to certain facilities that would result in serious danger to life and health, or widespread social or economic dislocation, no new critical facility shall be located within any Area of Special Flood Hazard, or within any 500-year flood zone shown as a B zone or a Shaded X zone on the Community's Flood Insurance Rate Maps. 							
Municipal Separate Storm Sewer System (MS4)	Yes	EPA Phase II Stormwater Rule	Federal	-	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Emergency Management	Yes	NYS Executive Law, Article 2B	Local	Town and Village of Afton Emergency Planning committee	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change	No	-	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment: -							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment: -							
Other	No	-	-	-	-	-	-
Comment: -							
Planning Documents							
Comprehensive Plan	Yes	2018 Village of Afton Strategic Plan	Local	Village Administrator	No	Yes	-
Comment: The Village of Afton Strategic Plan, 2018, was developed in order for the Village to receive funding for a flood mitigation study and to revitalize the Susquehanna River waterfront area. Options explored in the plan for flood mitigation include a flood-water storage system including porous pavements, bioretention areas, rain barrels, infiltration trenches, and vegetative swales. Recreating wetlands in floodplain areas via buyouts and relocation of homes and farmlands was also discussed within the plan.							
Capital Improvement Plan	Yes	General Municipal Law Section 99-g.	Local	Village Administrator	No	No	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	No	-	State	-	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Zoning/Subdivision Regulations	Local, State	NYSDEC	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	Yes	NYS Constitution - Article 9; Statute of Local Governments. Section 10 (7)	Local	-	Yes	No	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	Yes	2018 Village of Afton Strategic Plan	Local	Non-profit Development	No	Yes	NA
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. <ul style="list-style-type: none"> Strategic Plan - A Strategic plan for economic development has been established for the purposes of addressing low cost energy technology, public transportation development, waterfront park development, flood mitigation, water quality and wetland restoration, as well as the historic restoration of Main St. This plan will help the Village of Afton have a clear path to becoming a sustainable city that can be an example for other rural areas in the Southern Tier. The Strategic plan is in response to the continued flooding, subsequent damage to property and threats to life and livelihood. In order for the Village to receive funding for a flood mitigation study, an economic revitalization study was requested by the New York State Department of State. The Plan seeks the mitigation of flooding by working with NYS Department of Transportation and other available resources. The Plan proposes as one of its actions, Innovation and Sustainability. This action would include renovating and retrofitting historic Main St. and moving residences out of the flood plain. Proposed Improvements include creating a sewer system and implementing alternative energies, green technologies, green infrastructure, and an inclusive public transportation system. 							
Shoreline Management Plan	N/A	-	-	-	Yes	-	-
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	Yes	Waterfront Revitalization Plan, March 2018	Local	Village Administrator	No	Yes	NA
Comment: <ul style="list-style-type: none"> Waterfront Revitalization Plan: The objectives of the waterfront revitalization study were to address waterfront park development, flood mitigation, water quality, and wetland restoration, by mitigating flooding in the areas that have historically and are predicted to be affected by flooding. The scope of work included: An analysis of the various past flood events; An analysis of the various flood mitigation options that would promote the goals of the study; and Cost/benefit analysis associated with implementing the various mitigation options. Flood risk mitigation options include, increasing Watershed Management and BMPs, relocation of flood prone properties, hard path solutions, soft path solutions and development of a waterfront park. 							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	Afton, New York Emergency Operations Plan, 2009	Local	Afton Emergency Planning Committee	Yes	Yes	-
Comment: The Afton Emergency Operations Plan details the emergency-disaster response for both the Town and Village of Afton. The goal of the plan is to utilize resources to mitigate to prevent potential emergencies, prepare to deal efficiently with the effects of inevitable events, respond to protect property, and recover rapidly. Hazards analyzed in the Plan include floods, winter storms, windstorms, drought and forest fires, earthquakes, national emergencies, technological hazards related to hazardous materials, radiological emergencies, aircraft crashes, and shortages of energy or food supplies. Train derailments and emergencies related gas drilling are also discussed.							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	-	Local	Chenango County OEM	Yes	No	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	Yes	-	Local	-	No	No	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	Emergency Operations Plan, 2009	Local	Afton Emergency Planning Committee	No	Yes	-
Comment: The Town/Village of Afton Emergency Operations Plan includes maps of hazard areas and instructions for a coordinated response during a hazard event and includes specifications for the four phases of emergency management.							

Table 9.3-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Code Officer
Permits are tracked by hazard area. For example, floodplain development permits.	No
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No



Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Afton.

Table 9.3-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	
Mitigation Planning Committee	No	
Environmental Board/Commission	No	
Open Space Board/Committee	No	
Economic Development Commission/Committee	No	
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	
Mutual aid agreements	Yes	Town of Afton, Village of Bainbridge
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	Yes	County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	Steve Fox, CFM
Surveyor(s)	Yes	County Highway Department
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Afton Fire Department
Grant writer(s)	Yes	Consultant on Retainer
Resilience Officer	No	-
Other	No	-

Fiscal Capability

The table below summarizes financial resources available to the Village of Afton.

Table 9.3-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements 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	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No



Financial Resources	Accessible or Eligible to Use (Yes/No)
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	No

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Afton.

Table 9.3-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	No
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	No

Community Classifications

The table below summarizes classifications for community programs available to the Village of Afton.

Table 9.3-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other			

Note:

N/A Not applicable
NP Not participating
- Unavailable



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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.3-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Afton.

Table 9.3-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Village of Afton	12	27	\$554,018	10	-	5

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.



Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Village of Afton has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Cortland has completed Community Assistance Visits (CAV), with the most recent visit completed in 2008.

Regulatory

The Village of Afton's Flood Damage Prevention Ordinance (FDPO) was last updated on October 26, 2010. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Infrastructure Protection:** Consider non-structural flood hazard alternatives for at risk properties within the floodplain, including the one identified as repetitive loss, such as acquisition/relocation or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.
- **Floodplain Management:** Continue/Enhance Stormwater Management by replacing culverts with larger capacity units and reinforcing embankments to reduce/eliminate erosion, and control flooding especially along the banks of Bumps Creek and Kelsey Brook. Reinforcement of the banks will maintain the integrity of these water bodies.
- **Infrastructure Protection:** Develop tree trimming and removal program to keep trees from threatening property and infrastructure.
- **Infrastructure Protection:** Purchase back-up utilities for sewer water system, specifically booster and lift stations.
- **Open Space Plans/Floodplain Management:** Convert current flood prone and repetitive flooded properties to open space, contingent on property owner co-operation.
- **Floodplain Management:** Consider participation in incentive-based programs such as CRS.
- **Infrastructure Protection:** Improve water flow under NYS Rte. 88 access ramp by opening existing barrier.
- **Infrastructure Protection:** River and stream bank stabilization; removal of sandbar in river.



Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

The following routes have been identified as evacuation routes within the Village:

- I-88
- State Route 7
- State Route 41
- Country Rd. 30
- Country Rd. 39

Sheltering

Afton Central School can be used as an emergency shelter and has backup power for emergencies.

Temporary Housing

The Village of Afton has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Village will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Village of Afton did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Village can utilize this analysis to identify potential locations.

9.3.5 Hazard Event History Specific to the Village of Afton

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Village of Afton's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.3-11 provides details regarding municipal-specific loss and damages the Village experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.3-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
September 2018	Flooding	No	In September, heavy rain washed out some of Bumps Creek	Minor flooding – no damage
July 19, 2019	Severe Storm	No	Severe thunderstorms throughout the area brought strong winds to the area.	Strong winds downed trees and damaged power lines on Long Hill Rd near the cemetery,



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
				causing \$10,000 in property damages.

Notes:

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

9.3.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Village of Afton's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

**Table 9.3-12. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Sunoco-Afton Country Store	Gas Station/Convenience Store	X	X	2021-V. Afton-004
Afton Edge Apartment Senior Housing	Senior Center	X	X	2021-V. Afton-004
Water Treatment Facility	Waste Water Facilities	X	X	2021-V. Afton-005
Potable Water Well	Potable Water Facilities	X	X	2021-V. Afton-005

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Village of Afton. The Village of Afton has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Village of Afton indicated the following:

- Agreement with calculated rankings – no changes made

Table 9.3-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
High	Medium	High	High	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- A pre-existing floodway has been reduced by the NYS Rte. 88 access ramp. The 24-inch culvert does not adequately allow water to flow freely through the area.
- Over the years sandbars have developed in the Susquehanna River diverting the water flow into the east side of the river bank. This has caused considerable erosion with the potential to damage Village infrastructure



Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- No Response

9.3.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.3-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
VAF-1	NYS Route 41 Bridge Improvements	Flood; Severe Storm	NYS DOT; USACE	NYS Route 41 Bridge Improvements	In Progress	Cost	-	The Village of Afton maintains a working relationship with NYSDOT to maintain the Route 41 Bridge within the Village.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VAF-2	Interstate 88 Culvert Improvements	Flood; Severe Storm	Village – appealing to NYSDOT	Continue to appeal to NYS DOT to improve water flow under Interstate 88 access ramp by opening existing barrier.	Ongoing	Cost	-	The Village of Afton maintains a working relationship with NYSDOT to maintain Interstate 88 within the Village.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VAF-3 (NEW)	River and stream bank stabilization; removal of sandbar in river.	Flood; Severe Storm	-	River and stream bank stabilization; removal of sandbar in river.	No Progress	Cost	-	The Village will work with the NYSDEC to improve streambank stability. See Mitigation Action # 2021-V. Afton-001.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VAF-4 (Former VAF-1)	Promote and support non-structural flood hazard mitigation alternatives for at risk properties	Flooding, Severe Storms	Village Governing Body; support from NYSOEM and FEMA	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL – 2 currently) and Severe Repetitive Loss (SRL – none currently), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits	Complete	Cost	-	Project Complete, discontinue
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				versus cost and willing participation of property owners. Specifically identified are the two RL properties on East Main Street.				
(Former VAF-5)	Convert current flood prone and repetitive flooded properties to open space, contingent on property owner co-operation.	Flood	Village Trustees	Convert current flood prone and repetitive flooded properties to open space, contingent on property owner co-operation.	Complete	Cost	-	Project Complete, Discontinue.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VAF-5 (Former VAF-2)	Continue/Enhance Stormwater Management	Severe Storms, Flood	Village Highway Department, Chenango County Soil/Water, NYDEC	Replacing culverts with larger capacity units and reinforcing embankments to reduce/eliminate erosion, and control flooding especially along the banks of Bumps Creek and Kelsey Brook. Reinforcement of the banks will maintain the integrity of these water bodies.	Ongoing	Cost	-	The Village continuously monitors culverts and makes updates and necessary.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VAF-6	Kerry Green of Creative Connections submitted an LOI (and grant application?) under Sandy HMGP for community planning for the Town and Village.			Kerry Green of Creative Connections submitted an LOI (and grant application?) under Sandy HMGP for community planning for the Town and Village.	No progress	Cost	-	This action was identified over 10 years ago and at this time, no longer valid.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
VAF-7 (Former VAF-4)	Purchase back-up utilities for sewer water system, specifically booster and lift stations.	All hazards	Village Trustees	Purchase back-up utilities for sewer water system, specifically booster and lift stations.	Ongoing Capability	Cost	-	This is part of the daily operations of the Village water department.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VAF-8 (Former VAF-6, -7)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All hazards	Village Trustees, County	See above	Ongoing Capability	Cost	-	This is part of the daily operations of the Village.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Afton has not identified any mitigation projects or initiatives apart from those included in the in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Afton worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.3-15 summarizes the comprehensive-range of specific mitigation initiatives the Village of Afton would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.3-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.3-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-V. Afton-001	Streambank Stabilization	1, 2, 3, 4, 7	Flood, Severe Storm, Severe Winter Storm	<p>Problem: Areas of the Susquehanna River are prone to debris buildup and flooding, which exacerbate erosion and overtopping risk.</p> <p>Solution: The Village of Afton will work with the County Soil and Water Conservation District to implement a plan to stabilize the banks for the Susquehanna River as it runs through the Village of Afton. This is to include removal of a sandbar in the river to allow for improved waterflow and reduce erosion concerns.</p>	No	No	Short	Village of Afton, CC SWCD	Medium - High	High	FEMA HMA, NYSDEC	High	SIP, NSP	SP, NR
2021-V. Afton-002	Tree Maintenance	1, 3, 6, 7	All Hazards	<p>Problem: Many residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events.</p> <p>Solution: The Village of Afton will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are nearby power lines as to reduce frequency of power outages.</p>	No	No	Less than 6 months	Village of Afton	Low	High	Municipal Budget, FEMA HMA	High	LPR	PP
2021-V. Afton-003	Vulnerable Population Outreach	1, 2, 3, 5	Disease Outbreak, Extreme Temperatures, All Hazards	<p>Problem: Over a quarter of the Village population is elderly.</p> <p>Solution: The Village of Afton will conduct an elderly-focused outreach campaign targeted at reducing risk and harm to vulnerable residents during a hazard event, with a focus on disease outbreaks and extreme temperatures. The Village will inform residents about programming at the Chenango County Department of</p>	No	No	Short	Village of Afton, Chenango County	Low	High	Municipal Budget	High	EAP	PI



Table 9.3-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				Health to reduce health risk during the ongoing COVID-19 Pandemic, as well as flu season and others, and will provide information about heating and cooling centers during extreme temperature events.										
2021-V. Afton-004	Critical Facility Flood Outreach	1, 2, 3, 5	Flood	<p>Problem: The Afton Edge Apartment Complex Senior Living Facility, and Sunoco Gas Station have been identified as critical facilities and are both located within the 1% SFHA (100-year floodplain).</p> <p>Solution: The Village will conduct outreach to the facility owners to inform relevant parties of their location within the SFHA and associated flood risks. If the owners decide to pursue mitigation for their properties, including elevation, relocation, or other flood protection measures including diverting flood waters, the Village will support the grant application process for these businesses and provide engineering or construction support as needed.</p>	Yes 💧	No	Short to conduct outreach	Village Board	Low to conduct outreach	High, ensures safety of senior residents and function of critical facilities	Municipal Budget	Medium	LPR	PP, PI
2021-V. Afton-005	Potable Water Pump and Water Treatment Facility Flood Protections	1, 2, 3, 5	Flood	<p>Problem: The Village Water Treatment Facility and Potable Water Pump are located within the 1% SFHA (100-year floodplain).</p> <p>Solution: The Village will conduct a flood vulnerability analysis of the facilities to determine the level of risk posed to these facilities by a flood. After determining the risk, the Village will implement the necessary flood protections to the treatment plant and water pump, including relocation if necessary. Other protection options include waterproofing and updating the seal at the water pump to eliminate</p>	Yes 💧	No	Within scope of HMP, Dependent on funding	Village Board, DPW	Medium-High	High, reduces flood impacts at critical facilities	FEMA HMGP	Medium	SIP	SP



Table 9.3-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				contamination by runoff, or elevation of the facility and water tanks. The Village will seek funding for updates and repairs as necessary and determined by engineering and the flood study.										

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:



- *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 also 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 9.3-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-V. Afton-001	Streambank Stabilization	1	1	1	0	1	1	1	1	1	1	1	1	0	0	11	High
2021-V. Afton-002	Tree Maintenance	1	1	1	1	1	1	1	1	1	1	1	1	0	1	13	High
2021-V. Afton-003	Vulnerable Population Outreach	1	1	1	1	1	1	1	0	1	1	1	1	0	1	12	High
2021-V. Afton-004	Critical Facility Flood Outreach	1	1	1	1	0	0	1	0	1	1	0	1	0	0	8	Medium
2021-V. Afton-005	Potable Water Pump and Water Treatment Facility Flood Protections	1	1	1	1	0	0	1	0	1	1	0	1	0	0	8	Medium

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.3.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.3-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak				003			003			
Drought										
Extreme Temperatures				003			003			
Flood	002, 004	001, 005	001			002, 004	004	001	001, 005	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm	002	001	001			002		001	001	
Severe Winter Storm	002	001	001			002		001	001	
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.3.9 Staff and Local Stakeholder Involvement in Annex Development

The Village of Afton followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Village departments, including: Code Enforcement and the Village Board of Trustees. The Code Enforcement Officer represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

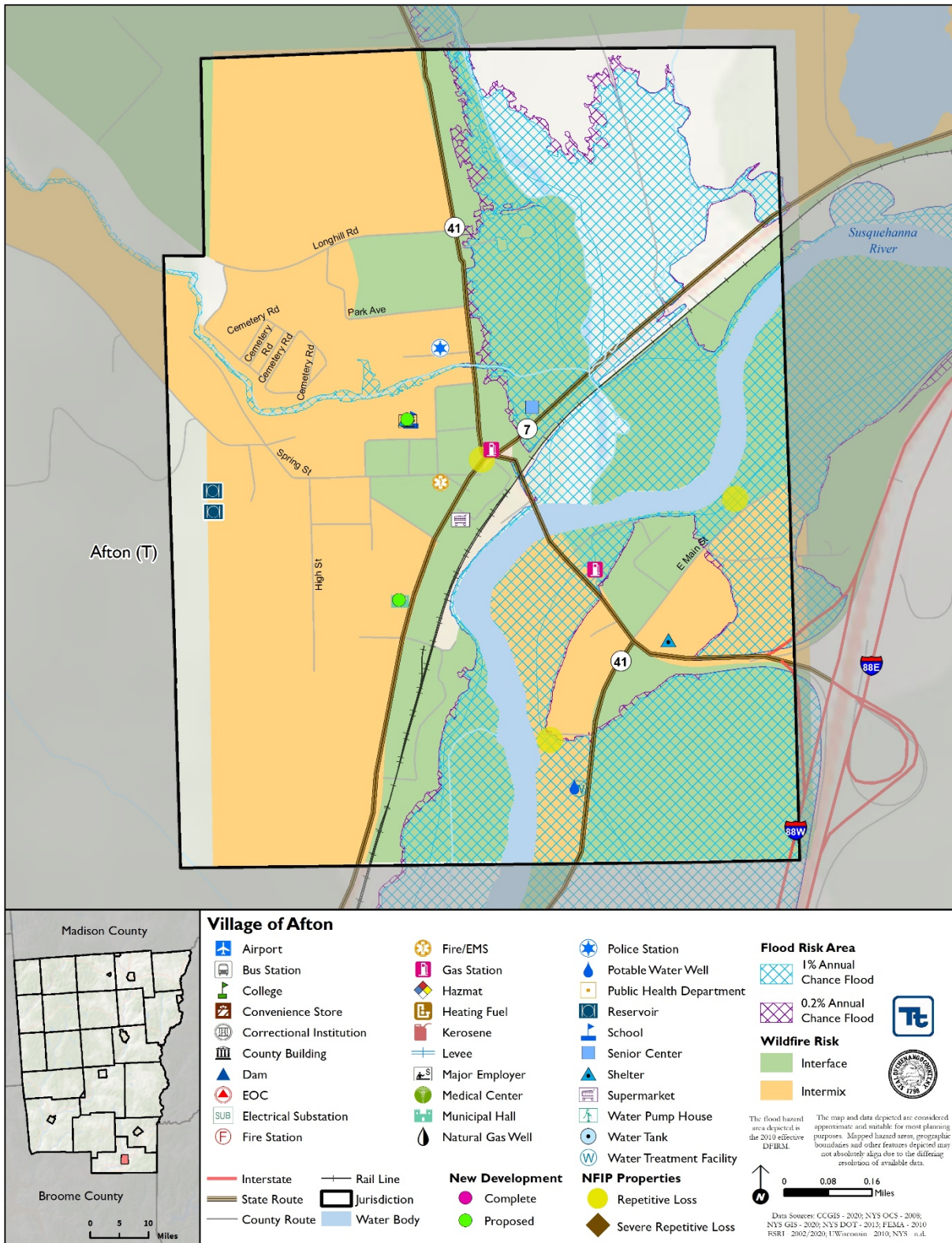
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.3.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Village of Afton that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Afton has significant exposure. The map is illustrated below.



Figure 9.3-1. Village of Afton Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Streambank Stabilization		
Project Number:	2021-V. Afton-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	Areas of the Susquehanna River are prone to debris buildup and flooding, which exacerbate erosion and overtopping risk.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village of Afton will work with the County Soil and Water Conservation District to implement a plan to stabilize the banks for the Susquehanna River as it runs through the Village of Afton. This is to include removal of a sandbar in the river to allow for improved waterflow and reduce erosion concerns.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	High, reduces erosion and flood risk to the Village
Useful Life:	60 years	Goals Met:	1, 2, 3, 4, 7
Estimated Cost:	Medium-High	Mitigation Action Type:	SIP, NSP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	1-2 years
Estimated Time Required for Project Implementation:	Within 5 years	Potential Funding Sources:	Municipal Budget, FEMA HMA
Responsible Organization:	Village of Afton, CC SWCD	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Add concrete to streambanks	\$5 Million	Costly, not "green," unfeasible
	Redirect River away from developed area	N/A	Impossible, would disrupt natural and built landscape
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Streambank Stabilization	
Project Number:	2021-V. Afton-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces risk to entire Village – buildings and population
Property Protection	1	Reduces risk to entire Village – buildings and population
Cost-Effectiveness	1	
Technical	0	Village will need to work with an Engineer
Political	1	
Legal	1	
Fiscal	1	
Environmental	1	Will protect natural landscape
Social	1	
Administrative	1	
Multi-Hazard	1	Flooding, Severe Storms, Severe Winter Storms, Ice Jams, Erosion
Timeline	1	
Agency Champion	0	
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Tree Maintenance		
Project Number:	2021-V. Afton-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm ,Severe Winter Storm		
Description of the Problem:	Many residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village of Afton will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are nearby power lines as to reduce frequency of power outages.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year MRP wind event	Estimated Benefits (losses avoided):	High, reduces power outages
Useful Life:	99 years	Goals Met:	1, 3, 6, 7
Estimated Cost:	Low	Mitigation Action Type:	LPR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Ongoing
Estimated Time Required for Project Implementation:	Less than 6 months to being identifying	Potential Funding Sources:	Municipal Budget, FEMA HMA
Responsible Organization:	Village of Afton	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Ground Power Lines	\$3 M+	Expensive, not cost-effective, will disrupt state and natural lands
	Remove all trees surround power lines	N/A	Not environmentally or ecologically sound, will not guarantee reduction in power outages
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Tree Maintenance	
Project Number:	2021-V. Afton-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces probability of power outages caused by debris during hazards
Property Protection	1	Prevents property from falling trees
Cost-Effectiveness	1	
Technical	1	Town can support implementation
Political	1	
Legal	1	
Fiscal	1	
Environmental	0	Possible concerns with over-trimming, tree removal
Social	0	
Administrative	1	
Multi-Hazard	1	All Hazards, Severe Storms
Timeline	1	Ongoing
Agency Champion	0	
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



9.4 Town of Bainbridge

This section presents the jurisdictional annex for the Town of Bainbridge. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Bainbridge's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.4.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Bainbridge's hazard mitigation plan primary and alternate points of contact.

Table 9.4-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Gary Richman, Highway Superintendent 15 N Main St Bainbridge, NY 13733 607-237-5967 townofbainbridgeny@gmail.com	Dolores Nabinger, Town Supervisor 15 N Main St Bainbridge, NY 13733 607-237-9414 dnabinger10@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court Street Norwich, NY 13815 607-337-1975 StevenF@co.chenango.ny.us	

9.4.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 1,953.

Town is at the eastern border of Chenango County, Exit 8 off Interstate 88 halfway between Binghamton and Oneonta. Coordinates: 42° 17' 41" N, 75° 28' 48" W. The center of town is where NYS Route 7 and NYS Route 206 intersect.

Sullivan Expedition of 1779 by Gen. Clinton to remove hostile natives. Town settled in 1788 by a group called "The Vermont Suffers." The town formed in 1791, which was originally known as the Town of Jericho. Jericho was re-named Bainbridge in 1814. Bainbridge is a rural town that was fortunate to have Elmer's Glue factory and American Plastic locate here. Both have since shut down.

The Town of Bainbridge is governed by a four member Town Board plus a Supervisor. This governing body will assume responsibility for adoption and implementation of this plan. The town also has a Town Clerk, Code Enforcer, Highway Supt, Planning Board, Town Justice, Town Attorney, Dog Catcher, Historian, and Constable.

9.4.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.4-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.4-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.



Table 9.4-2. Recent and Expected Future Development

Type of Development	2014		2015		2016		2017		2018	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
Mirabito Truck Stop Mid Valley Oil Company	Commercial		1		265.-2-5.2		AE 1-percent and 0.2-percent flood hazard areas		Planning stage, working with FEMA	
Constitution Pipeline (see details following)	Commercial		N/A		N/A		N/A		Canceled	
Leatherstocking Natural Gas Pipeline (see details following)	Commercial		N/A		N/A		N/A		Canceled	
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.4.4 Capability Assessment

The Town of Bainbridge performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.4.4). The Town of Bainbridge identified specific integration activities that will be incorporated into municipal procedures are



included in the updated mitigation strategy. Appendix G provides the results of the planning/policy document review and the answers to integration survey questions.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Bainbridge and where hazard mitigation has been integrated.

Table 9.4-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	State	Chenango County	Yes	Yes	N/A
Comment: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	-	-	-	-	-
Comment:							
Subdivisions	Yes	1998	Local	Local Planning Board	No	No	N/A
<p>Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).</p> <ul style="list-style-type: none"> Subdivision Regulations, 1998 - This Local Law is enacted pursuant to Section 10(1)(ii)(a) of the Municipal Home Rule Law and Section 276 of the Town Law of the State of New York. It is enacted for the purpose of providing for the orderly future growth and development of residential land within the Town of Bainbridge and for the purpose of providing for the future growth and development of the Town and affording adequate facilities for the housing, transportation, distribution, comfort, convenience, safety, health and welfare of its inhabitants, and to insure the protection and enhancement of the physical and visual environment within the Town of Bainbridge, and to further the protection, order, safety, health and well-being of persons and property within the Town of Bainbridge. No plat of a subdivision of land showing lots, blocks or sites, shall be filed or recorded in the Office of the County Clerk until it has been approved by the Planning Board of the Town of Bainbridge pursuant to Section 276 of the Town Law. As a limited mitigating measure, no final plat shall be approved unless and until such plat includes a proposed plan for collecting and discharging surface waters within such subdivision, together with any impact on ground water, including any changes in flow, direction or quality brought about by the subdivision or any roads constructed thereupon. Such plan shall include any mitigation measures necessary to insure that surface water and ground water drainage patterns do not adversely affect adjoining and/or down-gradient land owners. Such plans shall be designed so as to anticipate the worst possible flooding conditions likely to be encountered within a twenty-five (25) year span. 							
Stormwater Management	Yes	Subdivision Regulations	Local, State	NYSDEC	Yes	No	N/A
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery	No	-	-	-	No	-	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	No	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	Yes	Site Plan and Subdivision Regulations	Local	Local Planning Board	No	No	N/A
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	1998	Local	Local Planning Board	No	Yes	N/A
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc. <ul style="list-style-type: none"> This Local Law is enacted pursuant to Section 10 of the Municipal Home Rule Law and Section 274-a of the Town Law. It is the intent of this Local Law to insure the optimum overall conservation, protection, preservation, development and use of the natural and man - related resources of the town by regulating land use activity within the town through review and approval of site plans. The Town Board of the Town of Bainbridge hereby authorizes the Planning Board to review and approve, approve with modifications or disapprove site plans. To a moderate extent relative to flood mitigation, the Planning Board's review of the site plan shall include, as appropriate; Adequacy of stormwater and drainage facilities; Adequacy, type and arrangement of trees, shrubs and other landscaping constituting a visual and/or noise buffer between the applicant's and adjoining lands, including the maximum retention of existing vegetation; and Special attention to the adequacy and impact of structures, roadways and landscaping in areas with susceptibility to ponding, flooding and/or erosion. 							
Environmental Protection	No	-	State	-	Yes	-	-
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	March 1987 Updated September 9, 2014	Federal, State and Local	Town, with the support of the County per recent MOU	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Flood Damage Prevention Law, September 9, 2014 - A local law for Flood Damage Prevention as authorized by the New York State Constitution, Article IX, Section 2, and Environmental Conservation Law, Article 36. The Town Board of the Town of Bainbridge finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Bainbridge and that such damages, may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. In order to minimize the threat of such damages the Town Board adopted the Flood Damage Prevention Law. It is the purpose of this local law to promote the public health, safety, and general welfare, and to / minimize public and private losses due to flood conditions in specific areas by provisions designed/ to: <ol style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; 							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<p>(5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and;</p> <p>(6) qualify and maintain for participation in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> No structure in an area of special flood hazard shall hereafter be constructed, located, extended, converted, or altered and no land shall be excavated or filled without full compliance with the terms of this local law and any other applicable regulations. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. The following standards apply to new and substantially improved residential structures located in areas of special flood hazard; Within Zones A1 -A30, AE and AH and also Zone A if base flood elevation data are available, new construction and substantial improvements shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. Within Zone A, when no base flood elevation data are available, new construction and substantial improvements shall have the lowest floor (including basement) elevated at least three feet above the highest adjacent grade. New and substantially improved commercial, industrial and other non-residential structures located in areas of special flood hazard shall have the lowest floor, including basement or cellar, elevated to or above two feet above the base flood elevation; or be floodproofed so that the structure is watertight below two feet above the base flood elevation, including attendant utility and sanitary facilities, with walls substantially impermeable to the passage of water. All structural components located below the base flood level must be capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. 							
Municipal Separate Storm Sewer System (MS4)	No	-	Federal	-	Yes	-	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	-	-	Local	-	Yes	-	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change	-	-	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	Local/County	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	Local/County	-	No	-	-
Comment:							
Other	Yes	See Below	Local	-	-	-	-
Comment: <ul style="list-style-type: none"> Special Purpose Ordinances – Adopted 1991 Sanitary Ordinance - 1988 Telecommunications – Dec. 2000 Junkyard Ordinance – 1990 Site Plan - 2000 							
Planning Documents							
Comprehensive Plan	Yes	Not Indicated	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Capital Improvement Plan	Yes	General Municipal Law Section 99-g.	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	NYSDEC permit and Federal Agencies	State	NYSDEC	No	-	-
Comment:							
Stormwater Plan	Yes	-	Local, State	NYSDEC	-	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	Yes	NYS Constitution - Article 9; Statute of Local Governments. Section 10 (7)	Local	Town Board	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	Yes	Not Indicated	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	-	-
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	Yes	NYCRR Part 390 Agricultural and Farmland Protection -	Local	County Planning	Yes	No	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	County	Chenango County Emergency Management	Yes	Yes	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Not Indicated	Local	Local OEM	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	Yes	Not Indicated	Local	Town Board	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other	Yes						
Comment:							
<ul style="list-style-type: none"> Emergency Response Plan 							



Table 9.4-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	No
Permits are tracked by hazard area. For example, floodplain development permits.	No
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Bainbridge.

Table 9.4-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Bainbridge Development Corporation
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	Highway Department
Mutual aid agreements	Not Identified	
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Planning Board Code Enforcement
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning and Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water
NFIP Floodplain Administrator (FPA)	Yes	Steve Fox, CFM
Surveyor(s)	Yes	County Hwy Department
Emergency Manager	Yes	Chenango County Emergency Management and Bainbridge Fire District
Grant writer(s)	Yes	Thomas Associates, Cortland NY; Cornell Cooperative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Bainbridge.



Table 9.4-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes- Town residents pay to Village
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Bainbridge.

Table 9.4-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes, Town Clerk
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	Yes, Bainbridge Community Foundation
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Yes, Bainbridge Chamber of Commerce Newsletter
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Not identified
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Bainbridge.

Table 9.4-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A



Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	No	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.4-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Bainbridge.

Table 9.4-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss	# RL Properties	# SRL Properties	# Policies in the
--------------	------------	----------------------	---------------	--------------------	---------------------	----------------------



			Payments			1% Flood Boundary
Town of Bainbridge	22	39	\$686,419	20	-	10

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Bainbridge has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Bainbridge has completed Community Assistance Visits (CAV), with the most recent visit completed in 2016.

Regulatory

The Town of Bainbridge Flood Damage Prevention Ordinance (FDPO) was last updated on September 9, 2014. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Site Plan Review – Stormwater and Floodplain Management:** When a Site Plan Review is done by the Planning Board, it is checked for runoff potential. Buildings damaged within the floodplain, even if less than 50% damaged, must be brought into 100% compliance with floodplain regulations.
- **Infrastructure Protection/Floodplain Management:** Initiate culvert replacement to increase flow and direction to control flooding and to prevent erosion.
- **Infrastructure Protection/Floodplain Management:** Rip rap entrance and exit of culverts along critical flooding areas in vicinity of Yaleville Brook, Newton Brook and town roads to prevent erosion.
- **Land Use Plans:** Adjacent to Newton, Kelsey Yaleville Brooks plant trees to help prevent erosion.
- **Infrastructure Protection/Floodplain Management:** Rip Rap or erosion control along Susquehanna River bank in General Clinton Park.
- **Floodplain Management:** Consider participation in incentive-based programs such as CRS.



Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

Evacuation routes are specific to hazard event and routes will vary according to the location and type of event. Residents should seek up-to-date information from the Chenango County Office of Emergency Management.

Sheltering

The Town of Bainbridge has not designated emergency shelters but will evaluate the use of the municipal hall to serve as a warming/cooling center in the event of power outages. In the event that sheltering is needed shelters will be determined at the time of an emergency, in accordance with the County CEMP. Previously, the Greenlawn Elementary School has been used as an American Red cross-designated sheltering location in Bainbridge.

Temporary Housing

The Town of Bainbridge has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of Bainbridge did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.4.5 Hazard Event History Specific to the Town of Bainbridge

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Bainbridge's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.4-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.4-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
2006	Flooding	Yes	Heavy rainfall and flash flooding	Culvert pipes washed out throughout the Town
2011	Flooding	Yes	Heavy rainfall and flash flooding	Culvert pipes washed out throughout the Town
June 12, 2015	Thunderstorm Wind	-	An unstable warm front brought showers and thunderstorms with	The thunderstorm resulted in trees being knocked over in



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
			damaging winds reaching 50 mph, and producing large hail.	the Bainbridge-Afton area, causing an estimated \$10,000 in damages.
August 4, 2017	Thunderstorm Wind	-	A cold front brought strong thunderstorms and damaging winds across the region. Wind gusts reached upwards of 50 mph.	This thunderstorm produced severe winds and knocked over trees and wires, causing an estimated \$2,000 in damages.

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

9.4.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Bainbridge's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

**Table 9.4-12. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Xtra Mart	Gas Station/ Convenience Store	Yes	Yes	2021-T. Bainbridge-003
EZ Fill	Kerosene	Yes	Yes	2021-T. Bainbridge-003
AES Jennison LLC	HazMat	Yes	Yes	2021-T. Bainbridge-003
Bainbridge Electrical Substation	Utility	Yes	Yes	2021-T. Bainbridge-002

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Bainbridge. The Town of Bainbridge has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Bainbridge indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.4-13. Hazard Ranking

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
High	Medium	High	High	Low	Medium	Medium	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- River-bank erosion next to Town Park: Over the years, erosion of 20+ ft. advancing toward building in park, resulting in removal of attached addition facing the river for safety reasons.
- Erosion of river-bank across from truck stop near the intersection of County Route 39 and NYS Route 206

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:



- Susquehanna River flooding in Bainbridge. Culverts on back roads not able to handle flooding.
- Front Street, River Street, Evans Street, Walnut Street, East Main Street in Bainbridge.
- Insufficient high-speed internet, frequent electrical outages with long repair periods.

9.4.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.4-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TOB-1 (Former TOB-1)	Initiative culvert replacement	Flood	NYS DEC, Chenango County Soil/Water/Fish/Wildlife	Initiative culvert replacement to increase flow and direction to control flooding and to prevent erosion. This program was initiated after the 2006 flooding event. The culvert replacement and road upgrades are ongoing as routine maintenance.	Ongoing	Cost	-	Replacement of culverts is an ongoing capability of the Town. See 2021-T. Bainbridge-001
						Level of Protection	Medium	
						Damages Avoided; Evidence of Success	Yes, reduced flooding	
TOB-2 (Former TOB-2)	Add rip rap to the entrance and exit of culverts along critical flooding areas in the vicinity of Town roads to prevent erosion.	Flood, Severe Storms	Town Highway Department, Chenango County Soil/Water	Add rip rap to the entrance and exit of culverts along critical flooding areas in the vicinity of Town roads to prevent erosion.	Complete	Cost	-	Project Completed
						Level of Protection	Medium	
						Damages Avoided; Evidence of Success	Yes	
TOB-3 (Former TOB-4)	Rip rap or erosion control	Flooding, Severe Storms	Town Highway Department, Chenango County, NYS DEC, U.S. Army Corps of Engineers	Rip rap or erosion control along Susquehanna River bank in General Clinton Park. This area in the Town falls under the jurisdiction of NYSDEC and U.S. Army Corps of Engineers.	Complete	Cost		Project Complete
						Level of Protection	Low	
						Damages Avoided; Evidence of Success	Low	
TOB-4	currently) and Severe Repetitive Loss (SRL – none currently), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners. Specifically identified are RL properties in the following locations: <ul style="list-style-type: none">County Road 39 (3 RL properties)State Highway 7 (5 RL properties)							



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	• Front Street State Highway 206							
	See above.	Flooding, Severe Storms	Town Governing Body; support from County, NYS DHSES and FEMA	See above.	Ongoing	Cost	-	The Town continues to support homeowners in flood mitigation initiatives. See 2021-T. Bainbridge-003
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TOB-5 (Former TOB-5, 6)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above.	All Hazards	Chenango County, as supported by relevant local department leads	See above.	Ongoing	Cost	-	Discontinue – support of State and County initiatives is an ongoing capability of the Town.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TOB-6	Support NYSDEC and USACE with the cleaning of the River.	All Hazards	NYSDEC, U.S. Army Corps of Engineers with the support of the Town of Bainbridge	The area of the Xtra Mart and EZ Fill gas station located on County Road 39 is prone to flooding in the Town. The River is the authority of NYSDEC and USACE. The Town will support NYSDEC and USACE with the cleaning of the River. This action is high priority but the Town	Ongoing	Cost	-	Replacement of culverts is an ongoing capability of the Town. See 2021-T. Bainbridge-001
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				does not have control over this.				



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Bainbridge has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- In June 2017, the Chenango County Soil and Water Conservation District planted trees in Clinton Park to rebuild the streambank and reduce erosion.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Bainbridge worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.4-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Bainbridge would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.4-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.4-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Bainbridge-001	Culvert Replacement	1, 2, 3, 4, 6, 7	Flood, Severe Storm	<p>Problem: Heavy Rains from severe storms often result in flash flooding throughout the Town. Areas of the Susquehanna River are also prone to flooding from erosion and high water levels.</p> <p>Solution: The Town Highway Department will implement a plan to inspect culverts before and after heavy rains and create an action plan for regular maintenance and replacement of culvert pipes that are undersized. The highway department will also perform regular cleaning of streambeds and clearing of the pipes of debris as needed. For culverts that may be impacted on state or county roads, the Town will contact NYSDOT or Chenango County Highway Department to make the necessary updates to culverts to prevent future damages.</p>	No	No	Short; Within timeframe of HMP	Town of Bainbridge Highway Department	Medium	High; Flash flooding is a major concern for the Town	Municipal Budget; FEMA HMA; NYSDOT	High	SIP	SP, PP, PR
2021-T. Bainbridge-002	Electrical Substation Flood Mitigation	All Goals	Flood, All Hazards	<p>Problem: The Bainbridge Electrical Substation is located within the 1% SFHA.</p> <p>Solution: The Town will work with an engineer and Chenango County Code Enforcement, supported by NYSEG, to conduct a flood vulnerability study for the Substation. Based on the findings of the study, the Town will support NYSEG to implement the best course of action to eliminate power losses to the town. If the substation should be relocated, the Town will work with the County to identify land</p>	Yes 💧	No	Short; Within timeframe of HMP	Town of Bainbridge; Chenango County Code Enforcement; Support from NYSEG	Low to conduct vulnerability study	High; Mitigation will help eliminate power loss to the Town and surrounding areas	Municipal Budget, NYSEG	Medium	LRP, SIP	PP, SP, ES



Table 9.4-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				outside of the floodplain best suited for the needs.										
2021-T. Bainbridge-003	Flood Prone Property Owner Outreach	1, 2, 3, 4, 5, 7	Flood	<p>Problem: There are 20 RL properties within the Town as of 2019, and 3 private businesses identified as Critical Facilities, located within the SFHA.</p> <p>Solution: The Town will provide outreach to property owners about their property's location within the floodplain. Outreach can include information about non-structural flood mitigation, as well as relocation and acquisition. Depending on the property owner's response and desire to mitigate, the Town will support grant applications and administration as needed. Chenango County Code Enforcement will support the administration of grants and mitigation of properties as the County FPA.</p>	Yes 💧	No	Short	Town of Bainbridge; support from Chenango County Code Enforcement	Low to conduct outreach and administrative support	High; reduce property damages and future losses	Municipal Budget; County Budget	High	LPR, EAP	PR, PP, PI

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.



NFIP National Flood Insurance Program
OEM Office of Emergency Management

Critical Facility:

Yes Critical Facility located in 1% floodplain

Mitigation Category:

- *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 manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NSP)* – These are actions that minimize damage and losses, and also 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

CRS Category:

- *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 also 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 9.4-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Bainbridge-001	Culvert Replacement	1	1	1	1	1	0	-1	1	1	1	1	1	1	0	10	High
2021-T. Bainbridge-002	Electrical Substation Flood Mitigation	1	1	1	1	0	-1	-1	1	1	1	1	1	0	1	8	Medium
2021-T. Bainbridge-003	Flood Prone Property Owner Outreach	1	1	1	1	1	1	0	1	1	1	0	1	0	1	11	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.4.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.4-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak	002	002				002			002	002
Drought	002	002				002			002	002
Extreme Temperatures	002	002				002			002	002
Flood	002, 003	001, 002		003	001, 003	001, 002, 003	003		001, 002	002
Harmful Algal Bloom	002	002				002			002	002
Invasive Species	002	002				002			002	002
Natural Gas	002	002				002			002	002
Severe Storm	002	001, 002				002			002	002
Severe Winter Storm	002	002				002			002	002
Wildfire	002	002				002			002	002

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.4.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Bainbridge followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Supervisor's Office, Town Board, and Highway Department. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

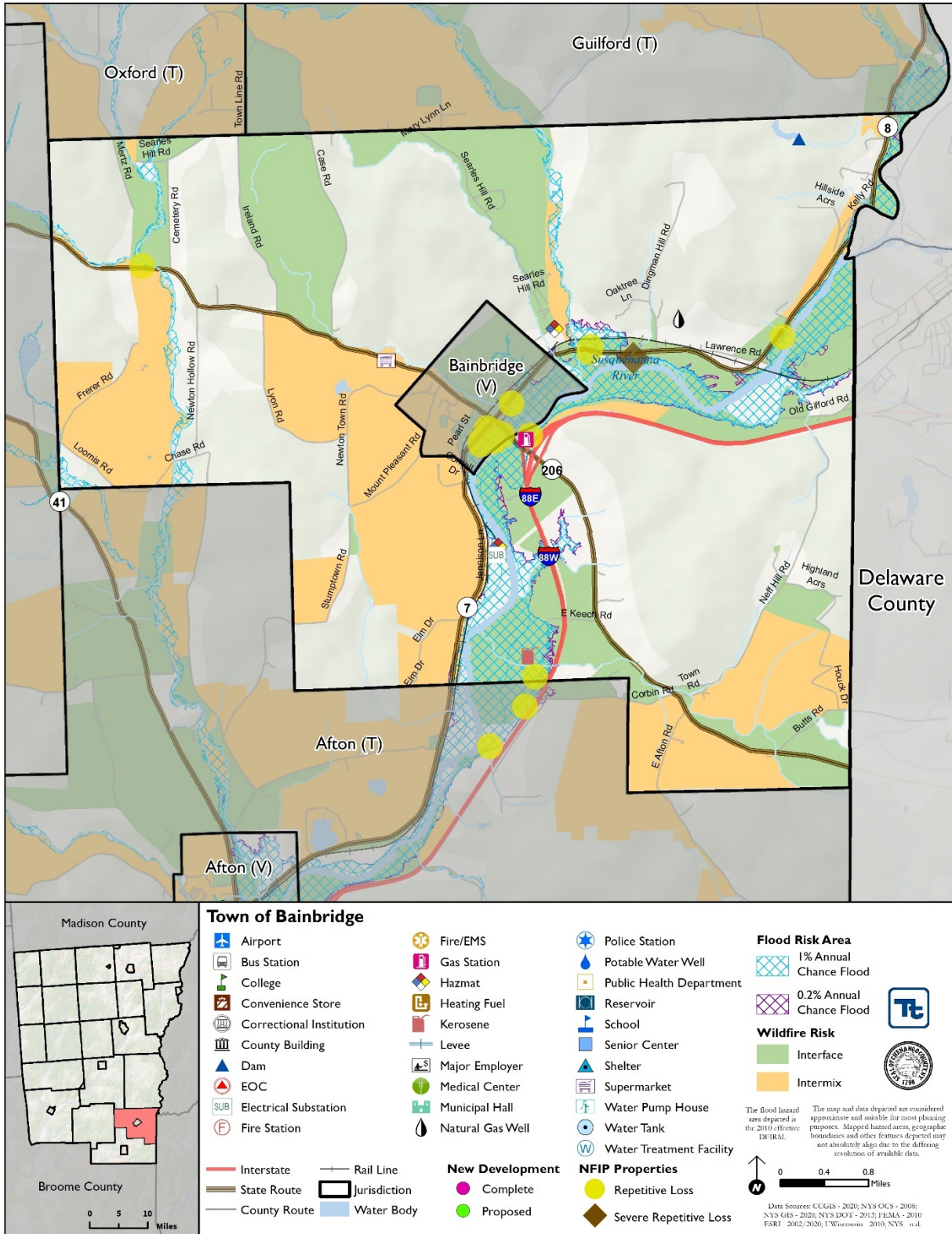
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.4.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Bainbridge that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Bainbridge has significant exposure. The map is illustrated below.



Figure 9.4-1. Town of Bainbridge Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	2021-T. Bainbridge-001		
Project Number:	Culvert Replacement		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Heavy Rains from severe storms often result in flash flooding throughout the Town. Areas of the Susquehanna River are also prone to flooding from erosion and high water levels.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Highway Department will implement a plan to inspect culverts before and after heavy rains and create an action plan for regular maintenance and replacement of culvert pipes that are undersized. The highway department will also perform regular cleaning of streambeds and clearing of the culvert pipes of debris as needed. For culverts that may be impacted on state or county roads, the Town will contact NYSDOT or Chenango County Highway Department to make the necessary updates to culverts to prevent future damages.		
Is this project related to a Critical Facility?			No
Is the critical facility located in the 1% annual chance flood area?			-
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	Flash floods, erosion, snow melt and flood impacts will be significantly reduced	Estimated Benefits (losses avoided):	High; Flash flooding is a major concern for the Town and correctly sized culverts will reduce the severity of flash floods after storms
Useful Life:	30 years	Goals Met:	1, 2, 3, 4, 6, 7
Estimated Cost:	Medium	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP as funding is available
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	Municipal Budget; FEMA HMA; NYSDOT
Responsible Organization:	Town of Bainbridge Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Raise frequently impacted roadways	\$1M+	Multiple roads are impacted, will disrupt traffic flows. Unfeasible/not cost effective
	Build retaining walls for River	\$1M+	Does not address flash flooding which is greater concern for residents; not environmentally sound
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. Bainbridge-001	
Project Number:	Culvert Replacement	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces, with goal to eliminate, flash flood risk
Property Protection	1	
Cost-Effectiveness	1	Best possible solution
Technical	1	
Political	1	
Legal	0	Some impacted roads are County/State and will need coordination with appropriate agencies
Fiscal	-1	Town will seek funding for new culverts as necessary
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm, Erosion, Winter Storms
Timeline	1	Can be implemented within scope of HMP
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	2021-T. Bainbridge-002		
Project Number:	Electrical Substation Flood Mitigation		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, All Hazards		
Description of the Problem:	The Bainbridge Electrical Substation is located within the 1% SFHA.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town, supported by the Village of Bainbridge, will work with an engineer and Chenango County Code Enforcement, supported by NYSEG, to conduct a flood vulnerability study for the Substation to ensure that previous mitigation measures protect the facility to the 0.2% event level (500-year flood). Based on the findings of the study, the Town and Village of Bainbridge will support NYSEG to implement the best course of action to eliminate power losses. If the substation should be relocated, the Town will work with the County to identify land outside of the floodplain best suited for the needs.		
Is this project related to a Critical Facility?			Yes
Is the critical facility located in the 1% annual chance flood area?			Yes
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Mitigation will eliminate power losses from flood to Town and Village of Bainbridge
Useful Life:	30 years	Goals Met:	All Goals
Estimated Cost:	High	Mitigation Action Type:	LRP, SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	1-2 years	Potential Funding Sources:	Municipal Budget, NYSEG, FEMA BRIC
Responsible Organization:	Town of Bainbridge; Chenango County Code Enforcement; Support from Village of Bainbridge and NYSEG	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate the facility	N/A	May not be necessary, difficult to relocate; will disrupt current power grid
	Install green energy sources for entire population	N/A	There is not enough land in the Town to install a large enough solar/wind farm to be the sole source energy supply for both Town and Village
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. Bainbridge-002	
Project Number:	Electrical Substation Flood Mitigation	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures power to all residents and buildings
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	0	Substation serves both the Town and Village
Legal	-1	NYSEG manages the facility and would need to approve any solutions
Fiscal	-1	NYSEG will be responsible for any mitigation costs
Environmental	1	No predicted environmental issues
Social	1	
Administrative	1	Town has existing relationship with NYSEG
Multi-Hazard	1	All Hazards
Timeline	1	
Agency Champion	0	
Other Community Objectives	1	
Total	8	
Priority (High/Med/Low)	High	



9.5 Village of Bainbridge

This section presents the jurisdictional annex for the Village of Bainbridge. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Village participated in the planning process; an assessment of the Village of Bainbridge's risk and vulnerability; the different capabilities utilized in the Village; and an action plan that will be implemented to achieve a more resilient community.

9.5.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Village of Bainbridge's hazard mitigation plan primary and alternate points of contact.

Table 9.5-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Philip Wade, Mayor Village of Bainbridge, 33 W. Main St., 13733 914-582-7289 bainbridgemayor@gmail.com	Jay Campbell, Deputy Mayor Village of Bainbridge, 33 W. Main St., 13733 607-244-7289 timjaylibby@gmail.com
NFIP Floodplain Administrator	
Name/Title: Steve Fox, Chenango County Code Enforcement Address: 5 Court St. Norwich, NY 13815 Phone Number: 607-316-0403 Email: stevenf@co.chenango.ny.us	

9.5.2 Municipal Profile

The Village of Bainbridge is the commercial and residential center of the Town of Bainbridge. The Village is on the West Bank of the Susquehanna River at the junction of State Routes 7 and 206. The Village is 32 miles north of the City of Binghamton on the Pennsylvania border and only 175 miles west of New York City.

Bainbridge traces its history back to the Sullivan-Clinton Expedition in 1779 to clear the Susquehanna Valley of Indians. On May 6, 1786 land grants established 64 lots of 640 acres in the area of the Village of Bainbridge to the original settlers. The original settlement was named Jericho. The first official town meeting was held in 1791. On April 15, 1814, Jericho became Bainbridge, named after Commodore William S. Bainbridge. The Village of Bainbridge was incorporated in 1829.

The Village of Bainbridge is governed by a Mayor and four-member Board of Trustees. The Village has three departments headed by an appointed Clerk/Treasurer, an appointed Superintendent of Public Works, and an appointed Police Chief. The Village operates a water distribution system and a municipal wastewater treatment plant. The Village has two volunteer boards; Planning and Zoning Board of Appeals. This governing body will assume responsibility for adoption and implementation of this plan.

According to the U.S. Census, the 2010 population for the Village of Bainbridge was 1,335. The estimated 2018 population was 1,442, a 6.4 percent increase from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 6.3 percent of the population is 5 years of age or younger and 17.5 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.



9.5.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.5-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.5-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.5-2. Recent and Expected Future Development

Type of Development	2015		2016		2017		2018		2019	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	1	-	0	-	1	-
Total	0	0	0	0	1	0	0	0	1	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.5.4 Capability Assessment

The Village of Bainbridge performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.5.4). The Village of Bainbridge identified specific integration activities that will be incorporated into municipal procedures are



included in the updated mitigation strategy. Appendix G provides the results of the planning/policy document review and the answers to integration survey questions.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Bainbridge and where hazard mitigation has been integrated.

Table 9.5-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local, County, State	Admin. By Chenango County	Yes	Yes	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	Yes	Adopted 5/10/1993	Local	Village Code Enforcement	No	Yes	N/A
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan" ¹¹ or "in accordance with a comprehensive plan." ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 2019, Article 7 of the Village Law	Local	Village Code Enforcement	No	Yes	N/A
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730). <ul style="list-style-type: none">By the authority of resolution of the Board of Trustees of the Village of Bainbridge, adopted pursuant to the provisions of Article 7 of the Village Law, the Planning Board has been authorized and empowered to approve plats for subdivisions within the village. The purpose of these regulations and the districts as outlined on the Zoning Map¹ is to provide for orderly growth in accordance with a Comprehensive Plan, to lessen congestion in streets, to secure safety from fire, flood and other dangers, to provide adequate light and air, to prevent overcrowding of land, to avoid undue concentration of population, to facilitate the adequate provision of transportation, water, sewage disposal, school, parks and other public requirements and to promote the health, safety and general welfare of the public. Land to be subdivided for building purposes shall be such that it can be used safely without danger to health, peril from flood or other menace.The Village of Bainbridge is divided into zoning districts, including a Floodplain District. Floodplain zoning is intended to provide a means for the regulation of land uses in areas subject to flooding, for the protection of life and property values and for the public safety, health, welfare and convenience. The following uses shall be prohibited in a designated floodplain:<ol style="list-style-type: none">(1) All residential, commercial, industrial and other buildings intended for human occupancy or employment, excluding recreational, agricultural and temporary uses.(2) All dumps, junkyards, excavation sites and storage of flammable liquids.(3) Sewage disposal and water supply facilities, except those approved by the State Department of Health. The regulations set forth in Chapter 63, Flood Damage Prevention, will also apply to this District.							
Stormwater Management	Yes	Zoning & Subdivision Ordinance	Local, County, State	Village Code Enforcement	Yes	Yes	N/A
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery	No	-	-	-	No	-	2021-Chenango County-2021
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	No	-
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	Yes	Within Subdivision Regulations or Floodplain regulations / Zoning Code	Local	Chenango County Planning	No	Yes	N/A
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a	Local	Village Code Enforcement	No	Yes	N/A
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	SEQR code	Yes	Yes	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	Adopted 5/10/1993, Updated 11/1/2011	Federal, State, local	Administered by County Code Official under an MOU with Village	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> A local law for Flood Damage Prevention as authorized by the New York State Constitution, Article IX, Section 2, and Environmental Conservation Law, Article 36. The Board of Trustees of the Village of Bainbridge finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Village of Bainbridge and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. In order to minimize the threat of such damages and to achieve the purposes and objectives hereinafter set forth, this local law is adopted. It is the purpose of this local law to: <ol style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program. 							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<ul style="list-style-type: none"> • A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. • The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard (including proposals for manufactured home and recreational vehicle parks and subdivisions): <ol style="list-style-type: none"> (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. • Regulated residential and nonresidential structures in the SFHA must be elevated so the lowest floor is a minimum of two feet above the BFE. • Critical Facilities ; In order to prevent potential flood damage to certain facilities that would result in serious danger to life and health, or widespread social or economic dislocation, no new critical facility shall be located within any Area of Special Flood Hazard, or within any 500-year flood zone shown as a B zone or a Shaded X zone on the Community's Flood Insurance Rate Maps. 							
Municipal Separate Storm Sewer System (MS4)	No	-	Federal	-	Yes	-	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	No	-	Local	-	Yes	-	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change Adaptation	No	-	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Other	No						
Comment:							
Planning Documents							
Comprehensive Plan	Yes	Adopted 2015	Local	Mayor and Board of Trustees	No	Yes	Limited in scope relative to Mitigation Measures
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 7-722a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level Adopted 2001 <ul style="list-style-type: none"> • The Village's mission is to become a vibrant, robust community to offer residents and businesses a progressive and safe environment to call home by collaboration with our business community, village residents and local government. <ol style="list-style-type: none"> 1. Provide safe streets and appealing neighborhoods 2. Maintain water and sewer systems 3. Maintain roads and sidewalks 4. Implement hazard mitigation activities • Of the Plans long term goals and objectives only one related to hazard mitigation; Embrace flood plain and waterfront by opening it up for recreation and events <ul style="list-style-type: none"> o Relocation of DPW to Village owned property out of flood plain 							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<ul style="list-style-type: none"> o Explore waterfront grant to improve the area with docks and a pavilion for larger attractions. The only implementation measure to advance mitigation in the Plan is the proposed use of federal programs for projects that are income based or flood related. 							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	-	State	NYSDEC permit and Federal Agencies	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Zoning & Subdivision Ordinance	Local	Village Code Enforcement	No	Yes	N/A
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	No	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	No	-	-
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No						
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	County OEM	Yes	Yes	NA
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	-	County	County Emergency Management	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No		
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other	Yes						
Comment:							
<ul style="list-style-type: none"> Emergency Response Plan. Bainbridge Fire District 							

Table 9.5-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, managed at County Level
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	Yes



Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Bainbridge.

Table 9.5-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	While the Village does not have a Planning Board, they do have a Zoning Board of Appeals
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	Not Indicated
Mutual aid agreements	Yes	Fire Departments
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	Available from Chenango County Code Enforcement
Planners or engineers with an understanding of natural hazards	Yes	County Highway
Staff with expertise or training in benefit/cost analysis	Yes	Contract
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	County Soil and Water Dept.
NFIP Floodplain Administrator (FPA)	Yes	Jeff Webb, Code Enforcement Officer with support from County Code Official per MOU
Surveyor(s)	Yes	County Highway
Emergency Manager	Yes	Chenango County EMS
Grant writer(s)	Yes	Consultant on retainer
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Village of Bainbridge.

Table 9.5-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements 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	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No



Financial Resources	Accessible or Eligible to Use (Yes/No)
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	Yes

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Bainbridge.

Table 9.5-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes, Mayor
Personnel skilled or trained in website development?	Yes, Mayor
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes, has Facebook page to notify residents
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Yes, Chamber newsletter
Warning systems for hazard events; if yes, briefly describe.	Yes, Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Not Indicated
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Village of Bainbridge.

Table 9.5-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable
NP Not participating
- Unavailable



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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.5-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Bainbridge.

Table 9.5-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Village of Bainbridge	29	36	\$679,420	18	-	18

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.



Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Village of Bainbridge has its own Planning/Zoning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Village of Bainbridge has completed Community Assistance Visits (CAV), with the most recent visit completed in 2016.

Regulatory

The Village of Bainbridge's Flood Damage Prevention Ordinance (FDPO) was last updated on October 12, 2010. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Site Plan Review:** When a Site Plan Review is done by the Planning Board, it is checked for runoff potential and compliance with floodplain regulations.
- **Tracking of Flood Damages:** Buildings damaged within the floodplain, even if less than 50% damaged, must be brought into 100% compliance with floodplain regulations.
- **Floodplain Management:** Continue local participation in NFIP, promote participation in the Community Rating System to lower flood insurance premiums, and inform public of availability of flood insurance.
- **Floodplain Management:** Consider non-structural flood hazard mitigation alternatives for at risk properties in close proximity to the Susquehanna River.
- **Infrastructure Protection/Floodplain Management:** Control flooding along Newton Creek by reinforcing the bank along the stream to prevent/control erosion. Prevention and maintenance will maintain the integrity.
- **Land Use Plans:** Develop tree trimming and removal program to keep trees from threatening lives, property and infrastructure during storm events.
- **Infrastructure Protection/Emergency Response Plan:** Purchase backup utilities for sewer and water systems including booster and lift stations.
- **Floodplain Management:** Consider participation in incentive-based programs such as CRS.
- **Floodplain Management/Public Education and Outreach:** Elevation of Homes in the flood plain is prohibitively expensive. Therefore as an alternative to reduce repetitive losses (7 in Village) we propose



to help homeowners by assisting them through education and requesting grants to raise utilities (e.g. water heaters, furnaces, electrical panels, etc.) above the flood plain. This will reduce future flood losses.

- **Floodplain Management:** Study the use of a berm to protect the area of repetitive flood damage from moderate level flooding. The area along the river bank from Walnut to Route 7 shows to be extremely low from visual observation. This will reduce future flood damages.
- **Infrastructure Protection:** Construct “Dry Hydrant” water system(s) to provide the ability to draw water from the river if needed to supplement the Village water supply in the occasion of a major fire. Water supply could fail due to flooding or wind storm bringing down power lines.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

The Village has identified SR-206 and SR-7 as possible evacuation routes out. The bridge that crosses the Susquehanna River on SR-206 lies outside of the village but has potential to be a hazard area.

SR-7 lies on the bank of the Susquehanna River and experiences flooding at various spots both North and South of the Village, however outside of the Village limits.

Sheltering

Fire Hall has backup power and can be used as a sheltering location. The Bainbridge-Guilford High School is located outside of the flood plain and has a generator that provides power to a portion of the building in the event of an outage. The High School also has cots that can be used for temporary housing.

Temporary Housing

The mobile home park can be used as a temporary housing location and is located outside of the floodplain.

Permanent Housing

While the Village of Bainbridge did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Village can utilize this analysis to identify potential locations.

9.5.5 Hazard Event History Specific to the Village of Bainbridge

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Village of Bainbridge’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.5-11 provides details regarding municipal-specific loss and damages the Village experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.



Table 9.5-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
January 7, 1966	Train derailment	No	A mechanical flaw caused 39 rail cars to derail in the center of the Village, causing extensive damage.	Two deaths were reported as a result of the crash, four cars were damaged, and the fire department and some homes were also damaged.
June 27-30, 2006	Flood (FEMA-DR-1650 and 1670)	Yes	The Village of Bainbridge was heavily impacted by major flooding during this period. The Susquehanna River rose to the 13-foot stage on June 27 and continued to rise to a record high of 27.03 feet on June 29.	A major employer in Bainbridge is the Amphenol Corporation, and the plant was damaged with 4-5 feet of water, causing the plant to close. An estimated \$50 million in property damages were reported
September 8, 2011	Flood (FEMA-EM-3341)	Yes	The remnants of Tropical Storm Lee caused heavy rain up to 12 inches in most of the Susquehanna river basin, creating large flooding events throughout the area. A major flood in Bainbridge occurred with a river crest of 26.15 feet.	Property damages from river flooding were estimated at \$150,000. Many homes within the floodplain were affected.
July 19, 2015	Severe Storm	No	Severe thunderstorms and heavy rain produced damaging winds (52 kts.) and large hail.	Numerous trees were blown down by severe winds resulting in \$10,000 of property damages.
August 4, 2017	Severe Storm	No	Severe thunderstorms and heavy rain produced damaging winds (50 kts.) and large hail.	Trees fell and damaged power lines throughout the village, resulting in \$2000 of reported property damages.

Notes:

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

9.5.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Village of Bainbridge's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.



Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.5-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Sewer Treatment Plant	Utility	X	X	2021-V. Bainbridge-006
Electrical Substation	Utility	X	X	2021-T. Bainbridge-001
Wastewater Treatment Plant	Utility	X	X	2021-V. Bainbridge-004
Potable Water Well	Utility	X	X	2021-V. Bainbridge-001
Potable Water Well	Utility	X	X	2021-V. Bainbridge-001

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Village of Bainbridge. The Village of Bainbridge has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Village of Bainbridge indicated the following:

- Agreement with calculated rankings – no changes made.



Table 9.5-13. Hazard Ranking

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	High	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Homes adjacent to river that have experienced bank erosion
- River flood is primary risk
- School does not have backup power
- Windstorms are a potential problem – historically tornadoes
- Bank erosion on the creek that runs through the Village
- Communications and internet service are poor no high speed internet access
- County reverse 911 available

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Damage to homes and infrastructure (e.g. Water pumping and Sewage Treatment facilities) in the Flood Plain is the known and predictable hazard for the Village.

9.5.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.5-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
VBB-1	Address repetitive loss properties	Flood	Village of Bainbridge	Elevation of homes in the flood plain is prohibitively expensive. Therefore as an alternative to reduce repetitive losses (7 RL properties currently in Village) we propose to help homeowners by assisting them through education and requesting grants to raise utilities (e.g. water heaters, furnaces, electrical panels, etc.) above the floodplain. This will reduce future flood losses.	No progress	-	-	Discontinue – lack of property owner interest due to high costs.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VBB-2	Berm Study	Flood	Village of Bainbridge, NYS DEC, USACE	Study the use of a berm to protect the area of repetitive flood damage from moderate level flooding. The area along the river bank from Walnut to Rt. 7 shows to be extremely low from visual observation. This will reduce future flood damages.	Complete	-	-	Discontinue per recommendation from Corps of Engineers.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VBB-3	Construct “Dry Hydrant” water system(s)	Wildfire	Village of Bainbridge	Construct “Dry Hydrant” water system(s) to provide the ability to draw water from the river if needed to supplement the Village water supply in the occasion of a major fire. Water	No progress	-	-	Include in action plan but contingent on securing funding. See 2021-V. Bainbridge-003
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				supply could fail due to flooding or wind storm bringing down power lines.				
(Former VBB-1)	Continue local participation in NFIP, promote participation in the Community Rating System to lower flood insurance premiums, and inform public of availability of flood insurance.	Flood	Village Trustees	Continue local participation in NFIP, promote participation in the Community Rating System to lower flood insurance premiums, and inform public of availability of flood insurance.	Ongoing	Cost	-	Continue to participate if property owner interest. See 2021-V. Bainbridge-005
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
(Former VBB-2)	Consider non-structural flood hazard mitigation alternatives for at risk properties in close proximity to the Susquehanna River.	Flood	Village Trustees, FEMA, SEMO	Consider non-structural flood hazard mitigation alternatives for at risk properties in close proximity to the Susquehanna River.	Ongoing	Cost	-	This is mostly a property owner education plan with action dependent on owner motivation. No funding exists to incentivize owners to take action.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
(Former VBB-3)	Control flooding along Newton Creek	Flood	Public Works, DEC/COE	Reinforcing the bank along the stream to prevent/control erosion. Prevention and maintenance will maintain the integrity.	Complete	Cost	-	Newton Creek floodway construction was performed by the Army Corps of Engineers in 1955.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
(Former VBB-4)	Develop tree trimming and removal program to keep trees from threatening lives, property and	Severe Storm	Village Trustees, NYSEG	Develop tree trimming and removal program to keep trees from threatening lives, property and infrastructure during storm events.	Ongoing	Cost	-	Village continues to budget for tree trimming and replacement.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	infrastructure during storm events.							
(Former VBB-5)	Purchase backup utilities for sewer and water systems including booster and lift stations	All hazards	Village Trustees	Purchase backup utilities for sewer and water systems including booster and lift stations	Complete-backup generator purchased.	Cost	-	Complete – no further action needed.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
(Former VBB-7, 8)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	Support of Federal, State, and County programming is an ongoing capability of the Village.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Bainbridge has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- NYDOT working on refurbishing 3 miles of State Route-206 through the Village from the Susquehanna River Bridge going West

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Bainbridge worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.5-15 summarizes the comprehensive-range of specific mitigation initiatives the Village of Bainbridge would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.5-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.5-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-V. Bainbridge-001	Alternate drinking water well(s)	2, 3, 6	Flood, Wildfire, Severe Storm	<p>Problem: Well #1 one is one of the 2 wells used for drinking water and firefighting. The well is located in the 1% flood plain but is not protected from contamination or operation in the event of a flood event. (see also generator proposal for electric continuity for the wells).</p> <p>Solution: A 2 part project to assess the well house, plumbing, electric and chlorination system for possible flood proofing, and develop the engineering specs required. The assessment would also explore feasibility of a new well not in the flood plain. The second phase would implement the flood proofing or new well.</p>	Yes	No	2 years	Village of Bainbridge DPW	\$50K – \$250K	Adequate drinking and firefighting water during flood events	FEMA FMA, HMGP, PDM, Village bonding, EFC borrowing and grants	High	SIP	PP
2021-V. Bainbridge-002	Relocate or elevate DPW garage	1, 2, 6	Flood	<p>Problem: The Current Public Works Garage is located in the Susquehanna River floodway, approximately 100 yards from the river. The garage is inaccessible in the event of a flood and all Public Works vehicles and equipment stored in the garage are vulnerable to damage and/or loss in the event of flood.</p> <p>Solution: The Public Works Garage must be flood proofed and/or relocated. Proposed is a 2 phase project: First phase is to assess flood proofing alternatives and costs as well as estimated costs to relocate the garage to a site not in the floodway. Second phase is to implement either the flood proofing proposed or construct a new facility.</p>	Yes	No	2 years	Village of Bainbridge DPW	\$1-2 million	Avoid building and equipment losses during flood events	FMA, HMGP, PDM	High	SIP	PP
2021-V. Bainbridge-003	Dry Hydrant sourced by river	1, 2, 7	Wildfire	Problem: There is currently no alternative to the municipal water system for fire-fighting if wells or tank experience failure.	Yes	No	1 year	Village of Bainbridge DPW, Bainbridge	\$15-20 K	Firefighting water source backup	PDM	Medium	SIP	ES



Table 9.5-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				Solution: Create a dry hydrant system on the river as alternate for reloading tankers				Fire Department						
2021-V-Bainbridge-004	Emergency Power System for wells	1	Flood, Severe Storm	Problem: Two floods in the past 17 years have resulted in power system failure at the water plant. Solution: The Village will purchase and install an automatic emergency power source not subject to flooding.	Yes	No	2 years	Village Board	Medium	Adequate drinking water during flood events	FMA, HMGP, PDM	High	SIP	PP
2021-V-Bainbridge-005	Flood proofing of houses and buildings in 1% flood plain	1, 2, 5	Flood	Problem: Approx. 50 homes and buildings are in 1% flood plain Solution: A combination of elevation and flood proofing for all homes and buildings in the flood plain	Yes	No	3-5 years	FEMA	\$10-20 K per structure	Avoid building losses and relocation expenses during flood	FMA, PDM	Medium	SIP, EAP	PP
2021-V-Bainbridge-006	Sewer Treatment Plant Flood Protections	1, 3	Flood	Problem: The Village Sewer Treatment Plant is located within the 1% SFHA (100-year floodplain). Solution: The Village will conduct a flood vulnerability analysis and inspection of the sewer treatment facility and determine the extent of flood damages and risk posed. The details of the study will inform the village DPW to implement updates to the facility, including but not limited to, elevation of pumps and water tanks to ensure function, sealing and water proofing systems, or relocation of the facility.	Yes 💧	No	2 years	Village Board, DPW	High	High	FEMA FMA	High	SIP	SP

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:Potential FEMA HMA Funding Sources:Timeline:



CAV Community Assistance Visit
CRS Community Rating System
DPW Department of Public Works
EHP Environmental Planning and Historic Preservation
FEMA Federal Emergency Management Agency
FPA Floodplain Administrator
HMA Hazard Mitigation Assistance
N/A Not applicable
NFIP National Flood Insurance Program
OEM Office of Emergency Management

FMA Flood Mitigation Assistance Grant Program
HMGP Hazard Mitigation Grant Program
PDM Pre-Disaster Mitigation Grant Program
BRIC Building Resilient Infrastructure & Communities

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.5-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-V. Bainbridge-001	Alternate drinking water well(s)	1	1	1	1	1	1	-1	1	1	-1	0	1	1	1	9	High
2021-V. Bainbridge-002	Relocate or elevate DPW garage	0	1	1	1	1	1	-1	1	1	0	0	1	1	1	9	High
2021-V. Bainbridge-003	Dry Hydrant sourced by river	1	1	0	0	1	1	0	0	1	1	0	1	0	0	7	Medium
2021-V. Bainbridge-004	Emergency Power System for wells	1	0	1	1	1	1	0	1	1	1	0	1	1	0	10	High
2021-V. Bainbridge-005	Flood proofing of houses and buildings in 1% flood plain	0	1	1	1	1	0	1	1	1	1	0	0	0	0	8	Medium
2021-V. Bainbridge-006	Sewer Treatment Plant Flood Protections	1	0	1	1	1	1	0	1	1	1	0	1	1	0	10	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.5.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.5-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA			CRS						
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood		001, 002, 004, 005, 006		005		001, 002, 004, 005			006	002
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001, 004				001, 004				
Severe Winter Storm										
Wildfire		001, 003				001				003

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.5.9 Staff and Local Stakeholder Involvement in Annex Development

The Village of Bainbridge followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Village departments, including: Mayor's Office, Village Board of Trustees. The Mayor and Deputy Mayor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

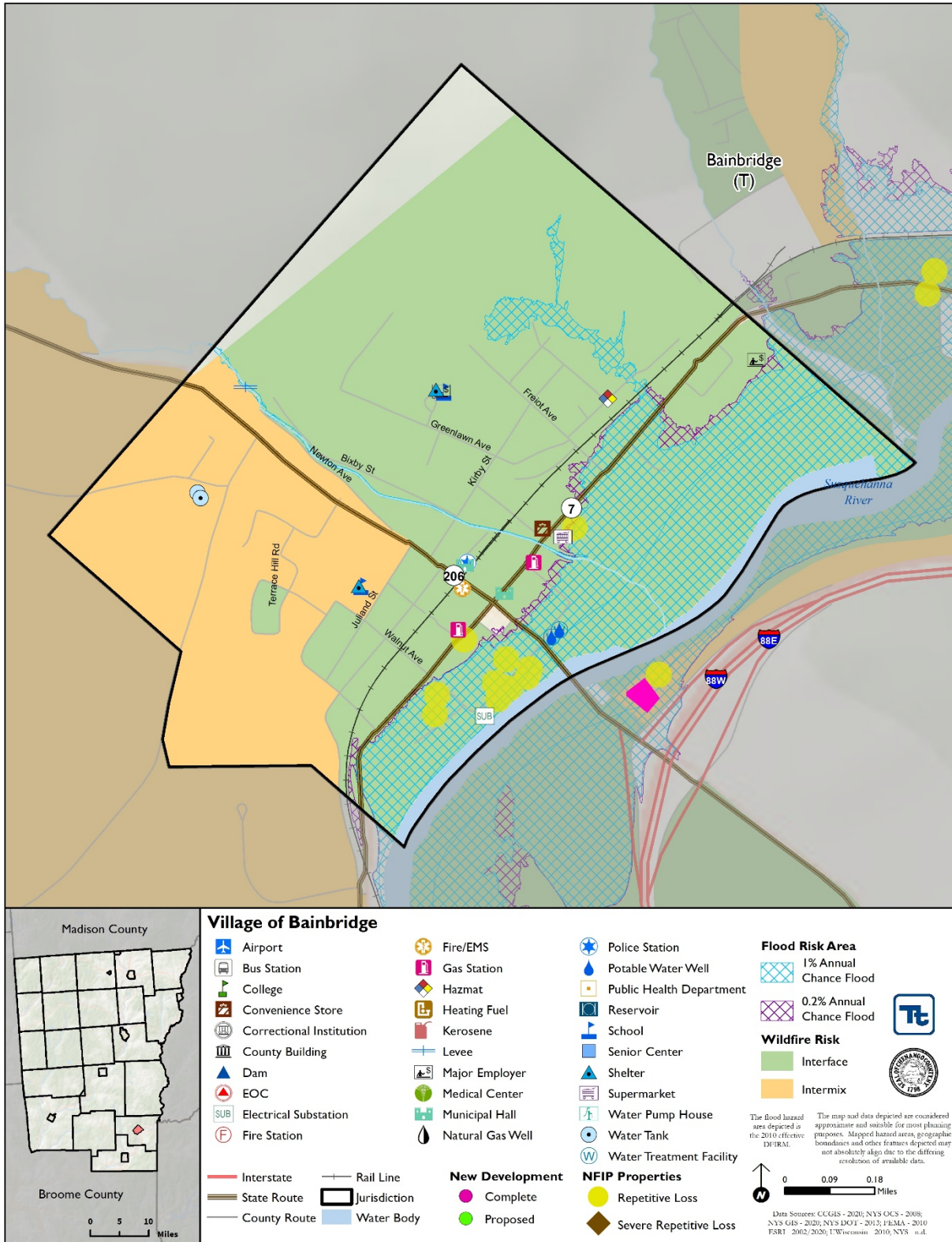
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.5.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Village of Bainbridge that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Bainbridge has significant exposure. The map is illustrated below.



Figure 9.5-1. Village of Bainbridge Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Relocate or elevate DPW garage		
Project Number:	2021-V. Bainbridge-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	The Current Public Works Garage is located in the Susquehanna River floodway, approximately 100 yards from the river. The garage is inaccessible in the event of a flood and all Public Works vehicles and equipment stored in the garage are vulnerable to damage and/or loss in the event of flood.		
Action or Project Intended for Implementation			
Description of the Solution:	The Public Works Garage must be flood proofed and/or relocated. Proposed is a 2 phase project: First phase is to assess flood proofing alternatives and costs as well as estimated costs to relocate the garage to a site not in the floodway. Second phase is to implement either the flood proofing proposed or construct a new facility.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500 year flood event	Estimated Benefits (losses avoided):	\$ 2 M - \$3 M
Useful Life:	35 years	Goals Met:	1,2,6
Estimated Cost:	\$1 – 2 Million	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	2 years
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	Village borrowing, FEMA mitigation grants
Responsible Organization:	Village of Bainbridge	Local Planning Mechanisms to be Used in Implementation if any:	Chenango County planning board, Chenango county flood plain and building inspector
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Emergency relocation plan for rapid relocation of equipment and tools	\$1000	Many dependencies: manpower needed to move equipment, tools, records. Very difficult in an emergency
	Move equipment, tools, records, to other municipal facilities.	\$100K-\$500K	Limited space, buildout of other sites, complicated operation logistics
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Relocate or elevate DPW garage	
Project Number:	2021-V. Bainbridge-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	Minimal life safety but could affect recovery or rebuild time
Property Protection	1	Primary storage for Village equipment; potential equip.& build. loss
Cost-Effectiveness	1	Mitigation will avoid potential loss claims for equip. & building.
Technical	1	Flood proofing may be technical challenge; new building very simple solution.
Political	1	Simple political justification – loss of equipment means loss of services.
Legal	1	Village has full control of the property involved.
Fiscal	-1	Costs would require long term debt which may not be authorized.
Environmental	1	Positive environmental benefit due to river pollution potential if gas and diesel vehicles are inundated.
Social	1	No adverse effect to any population segment or neighborhoods, or relocation of citizens required.
Administrative	0	Assessment (study) and project will require some outside expert assistance.
Multi-Hazard	0	Reduces risk to recurring flood risk
Timeline	1	Either flood proofing or relocation can be done in 2-3 year timeframe
Agency Champion	1	The entire Board and employee base are in favor of the project
Other Community Objectives	1	Relocation of the DPW facility could lead to riverside public parkland opportunity.
Total	9	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Alternate drinking water well(s)		
Project Number:	2021-V. Bainbridge-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Well #1 one is one of the 2 wells used for drinking water and firefighting. The well is located in the 1% flood plain but is not protected from contamination or operation in the event of a flood event. (see also generator proposal for electric continuity for the wells).		
Action or Project Intended for Implementation			
Description of the Solution:	A 2 part project to assess the well house, plumbing, electric and chlorination system for possible flood proofing, and develop the engineering specs required. The assessment would also explore feasibility of a new well not in the flood plain. The second phase would implement the flood proofing or new well.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500 year flood event	Estimated Benefits (losses avoided):	\$150K to replace damaged equipment + decontamination costs
Useful Life:	40 years	Goals Met:	2,3,6
Estimated Cost:	\$50K to 250K	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	5 years
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	Village bonding, EFC borrowing and grants, FEMA grants
Responsible Organization:	Village of Bainbridge	Local Planning Mechanisms to be Used in Implementation if any:	Chenango County planning, Chenango County Code enforcement
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Reactivate walnut street well	\$10K	Well failed earlier tests; may not pass potable water use.
	Build pipeline from Sidney NY (6 miles distant)	\$1-5 million	Sidney already has capacity problems; no other municipal systems within reasonable distance.
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Alternate drinking water well(s)	
Project Number:	2021-V. Bainbridge-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Drinking and firefighting water critical to Village residents' safety
Property Protection	1	Firefighting water critical to Village residents' property protection. Flooding of well equipment is also a high cost loss.
Cost-Effectiveness	1	Costs of flood proofing or replacement low compared with potential property losses.
Technical	1	Flood proofing very feasible and long term. Replacement well is higher cost and higher risk.
Political	1	Protection of water supply has strong public rationale and support.
Legal	1	Village has complete and absolute legal authority to protect water supply.
Fiscal	-1	Funding flexibility does not currently exist; borrowing and/or grants will be required.
Environmental	1	No negative environment impact. Reduction of environment risk in the event a flood causes release/contamination due to chlorine release.
Social	1	Equitable access to water supply is shared by all constituents. No neighborhood disruption or relocation of lower income people is required for the project.
Administrative	-1	Additional outside expertise is required for the engineering and administrative work.
Multi-Hazard	0	Reduces the risk from flooding only.
Timeline	1	Project can be easily completed in 2-3 year timeline.
Agency Champion	1	Strong support for protecting the water supply exists on the entire board and staff.
Other Community Objectives	1	A secure and protected water system protects resident property values, and future potential economic development.
Total	9	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Emergency Power System for wells		
Project Number:	2021-V. Bainbridge-004		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	Two floods in the past 17 years have resulted in power system failure at the water plant.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village will purchase and install an automatic emergency power source not subject to flooding.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500 year flood event	Estimated Benefits (losses avoided):	Potentially lifesaving
Useful Life:	30 years	Goals Met:	1
Estimated Cost:	Medium	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6 months
Estimated Time Required for Project Implementation:	Short	Potential Funding Sources:	FEMA Grants/ HMA
Responsible Organization:	Village Board	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate wells	N/A	No municipal land to relocate
	Add solar panels to well sites	\$2 M	Weather dependent and will still be affected by flooding
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Emergency Power System for wells	
Project Number:	2021-V. Bainbridge-004	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures safe drinking water and access
Property Protection	0	
Cost-Effectiveness	1	Best option
Technical	1	
Political	1	
Legal	1	
Fiscal	0	Village would need funding support to purchase power supply
Environmental	1	No environmental concerns
Social	1	
Administrative	1	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	Support from Mayor
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



9.6 Town of Columbus

This section presents the jurisdictional annex for the Town of Columbus. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Columbus's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.6.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Columbus's hazard mitigation plan primary and alternate points of contact.

Table 9.6-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Kevin Cross, Highway Superintendent 4340 State Hwy 80, Sherburne, NY 13460 607-847-8593 highway@columbus.us	Thomas Grace, Town Supervisor 4340 State Hwy 80, Sherburne, NY 13460 607-242-8957 graceforcolumbusny@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.6.2 Municipal Profile

The Town of Columbus is situated in the northeast corner of Chenango County. It is approximately 35 miles south of Utica and 35 miles west from Cooperstown, NY.

Columbus was established 1805. The first community in the United States to be so named. Most of the town is in agricultural use. Dairy farming is the main industry. Other industries are Chobani, Golden Artist's Paint, Columbus Wood Working, and Edmunds Lumber Company.

The Town of Columbus is governed by an elected five member Town Board composed of a Town Supervisor, who also represents the town at the County Board of Supervisors, and four (4) Council members. This governing body will assume responsibility for adoption and implementation of this plan.

According to the U.S. Census, the 2010 population for the Town of Columbus was 975. The estimated 2018 population was 903, a 7.4 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 3.7 percent of the population is 5 years of age or younger and 16.7 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.6.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.6-2 summarizes recent and expected future development trends, including major residential/commercial



development and major infrastructure development. Figure 9.6-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.6-2. Recent and Expected Future Development

Type of Development	2015		2016		2017		2018		2019	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None identified										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.6.4 Capability Assessment

The Town of Columbus performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.6.4). The Town of Columbus identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy. Appendix G provides the results of the planning/policy document review and the answers to integration survey questions.



Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Columbus and where hazard mitigation has been integrated.

Table 9.6-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229) – Local Law #1 of 1987, Building Code and Code Enforcement Officer	Local, State	Handled by County – Code Enforcement Officer	Yes	Yes	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries. <ul style="list-style-type: none">Town of Columbus Local Law #1 of 1987, Building Code and Code Enforcement Officer. A local law authorizing the Town of Columbus to enforce the New York State Uniform Fire Prevention and Building Code by creating the position of Code Enforcement Officer and by designating all information associated with compliance to the administration of said code.No person, firm, corporation, association or other organization shall commence the erection, construction, enlargement, alteration, improvement, removal or demolition of any building or structure, except an agricultural building or structure, nor install heating equipment without having applied for and obtained a permit from the Code Enforcement Officer.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivisions	Yes	Adopted 1996, amended 2001 – Local Law #1 of 2020, Subdivision Law	Local	Local Planning Board	No	Yes	N/A
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730). <ul style="list-style-type: none">Town of Columbus, Local Law # 1 of 2020, Subdivision Law. It is the purpose of this law to provide for the orderly future growth and development of the Town of Columbus, and to maintain the safety, health and welfare of the population. The Planning Board of the Town of Columbus is authorized and empowered to approve subdivision plats showing lots, blocks or sites, with or without streets or highways.The Subdivision Plat must show the locations of wetlands and other significant environmental features (wells, surface water). The application shall include, a completed Part 1 of SEQRA Long EAF, a soil composite map, and results of Perc Tests.							
Stormwater Management	Yes	Subdivision Regulations	Local, State	NYSDEC	Yes	No	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department NYSDEC permits required for any major construction projects							
Post-Disaster Recovery	No	-	-	-	No	-	2021-Chenango County-2021
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	No	-
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	Yes	-	Local	-	No	No	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a – Local Law #1, 2014 Site Plan Review Law	Local	Local Planning Board	No	Yes	N/A
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc. <ul style="list-style-type: none"> Town of Columbus Local Law# 1-2014 Site Plan Review Law. The Town Board of the Town of Columbus, New York does hereby ordain and enact the Town of Columbus Site Plan Review Law pursuant to the authority and provisions of Section 10 of the Municipal Home Rule Law and Section 274-a of the Town Law. It is the intent of this local law to ensure the optimum overall conservation, protection, preservation, development and use of the natural and man-related resources of the Town, by regulating land use activity within the Town through review and approval of site plans. The Planning Board's review of the site plan shall include, as appropriate; Adequacy of stormwater and drainage facilities; Adequacy, type and arrangement of trees, shrubs and other landscaping constituting a visual and/or noise buffer between the applicant's and adjoining lands, including the maximum retention of existing vegetation; and Special attention to the adequacy and impact of structures, roadways and landscaping in areas with susceptibility to ponding, flooding and/or erosion. 							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	Not Indicated	Yes	No	-
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	Adopted 4/1/1989, amended 11/1/2010	Federal, State, Local	Managed through MOU with County? – Code Enforcement Officer/Local Administrator	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Town of Columbus Local Law #2, 1989. The Town Board of the Town of Columbus finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Columbus and that such damages, may include destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: 							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<p>(1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;</p> <p>(2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;</p> <p>(3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;</p> <p>(4) control filling, grading, dredging and other development which may increase erosion or flood damages;</p> <p>(5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and;</p> <p>(6) qualify and maintain for participation in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> The Code Enforcement Officer is hereby appointed Local Administrator to administer and implement this local law by granting or denying development permit applications in accordance with its provisions. A Development Permit shall be obtained before the start of construction or any other development within the area of special flood hazard as established in Section 3.2. New construction and substantial improvements of any resident or non-residential structure shall be elevated to or above the BFE The floodway is an extremely hazardous area due to high velocity flood waters carrying debris and posing additional threats from potential erosion forces. When floodway data is available for a particular site as provided by Section 4.3-2, all encroachments including fill, new construction, substantial improvements, and other development are prohibited within the limits of the floodway unless a technical evaluation demonstrates that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge. 							
Municipal Separate Storm Sewer System (MS4)	Yes	EPA Phase II Stormwater Rule	Federal	-	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	-	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change	No	NYS Executive Law, Article 75	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	-
Comment:							
Other	Yes	Local	-	-	-	-	-
Comment: <ul style="list-style-type: none"> Road Preservation Law – adopted 2012 Sanitary Code – adopted 1993 Refuse Disposal – adopted 1989 Right to Farm – adopted 1990 Salvage Yard Regulation – adopted 1996 Telecommunications – adopted 2009 Road Use Law – adopted 2012 Wind Power Facilities Law – adopted 2015 							
Planning Documents							
Comprehensive Plan	Yes	General City Law section 28a(3)(a);	Local	Local Planning Board	No	Yes	N/A



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
		Town Law section 272-a(2)(a); Village Law section 7-722(2)(a) – Comprehensive Plan, 2/8/2007					
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level Adopted 1996 <ul style="list-style-type: none"> The enactment of land use laws (commonly known as zoning) and regulations should be a goal of the Town in the near future. This is necessary to protect the residents, the Town, its tax base and environment. A major objective of the Town of Columbus is to maintain the rural character and natural environment so that it may be used and enjoyed by all the citizens of the Town. Land use policies should encourage practices designed to minimize runoff and erosion and discourage practices contrary to these goals such as building on slopes and/or clear cutting wood lands. The Town should adopt land use policies to promote the health of the watershed through the preservation and management of wetlands, forest, and open spaces. Local ordinances should be retained and enforced to prohibit the pollution of water, air or soil by toxic and/or noxious materials or conditions. 							
Capital Improvement Plan	Yes	General Municipal Law Section 99-g.	Local	Not Indicated	No	No	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	No	-	Local	-	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Not Indicated	Local, State	NYSDEC	No	No	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	NYS Constitution - Article 9; Statute of Local Governments. Section 10 (7)	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	-	-
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No	-	Local	-	No	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	No	-	Local	-	Yes	-	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment	County	Chenango County Health Department	Yes	Yes	N/A



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
		and Community Health Improvement Plan					
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other:	Yes	Not Indicated	Local, State	Chenango County EMS	Yes	-	-
Comment: <ul style="list-style-type: none">Emergency Response Plan – State Mandated							

Table 9.6-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Planning Board
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Columbus.

Table 9.6-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	No	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development County Highway Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development County Highway Engineer
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development



Resources	Available? (Yes or No)	Department/ Agency/Position
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	MOU with Chenango County NFIP Floodplain Administrator, Updated MOU
Surveyor(s)	Yes	County Highway Department, if available manpower
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with New Berlin, Sherburne and W. Edmeston Fire Departments
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Columbus.

Table 9.6-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes available to residents in past
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes. Free for subdivision review and road prevention requirements.
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Columbus.

Table 9.6-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	No



Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Town of Columbus Quarterly Newsletter
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Columbus.

Table 9.6-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.6-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High



Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Columbus.

Table 9.6-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Columbus	0	4	\$17,049	0	-	0

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Columbus has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Columbus has completed Community Assistance Visits (CAV), with the most recent visit completed in 1991.



Regulatory

The Town of Columbus's Flood Damage Prevention Ordinance (FDPO) was last updated in 1989. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- The Town is considering participating in incentive-based programs such as CRS.
- The Town has an annual program in place to increase culvert sizes, clean road side ditches, and open water discharge areas where possible. Additionally, the Town has re-routed Shawler Brook to minimize flooding along Hemlock Road and improved drainage at the intersection of County Route 25 and NYS Route 80.
- The Town supports and participates in all Federal, State and County-led programs intended to build local and regional mitigation and risk reduction capabilities, including workshops and trainings, public education and awareness, updates to NFIP flood mapping, and the development of plans and programs to meet the needs of vulnerable populations.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

Evacuation routes are specific to hazard event and routes will vary according to the location and type of event. Residents should seek up-to-date information from the Chenango County Office of Emergency Management.

Sheltering

The Town Highway Garage can be used as a temporary shelter.

Temporary Housing

The Town of Columbus has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of Columbus did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.6.5 Hazard Event History Specific to the Town of Columbus

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Columbus's history of federally-



declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.6-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.6-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
April 26, 2011	DR-1993	Yes	Flooding resulted in shoulder and road being washed out.	Damages to Town Roads
June 26, 2013	DR-4129	Yes	Flooding resulted in shoulder and road being washed out.	Damages to Town Roads
March 14, 2017	DR-4322	Yes	Winterstorm Stella	External wires damaged
October 31, 2019	DR-4472	Yes	Flooding resulted in shoulders, pipes, and roads to become washed out.	Damages to Town Roads

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.6.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Columbus's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).



The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.6-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None Identified				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Columbus. The Town of Columbus has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Columbus indicated the following:

- Agreement with calculated rankings – no changes made

Table 9.6-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Low	Low	Medium	Medium	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Numerous roads and culverts have been damaged compromising the highway infrastructure.
- Creek banks have eroded resulting in loss of property from flooding and high water.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- No Response



9.6.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.6-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TCL-1 (Former TOC-3)	Continued improvement of drainage and maintenance	Flood, Severe storms	Town of Columbus, Town Highway Department	Continued improvement of drainage and maintenance along Town roadways. The Town has a general annual road maintenance program for the increasing of culvert sizes, cleaning of roadside ditches, and open water discharge areas where possible.	Ongoing Capability	Cost	-	It's part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TCL-2 (Former TOC-4, -5)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of "Firewise" programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	It's part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Columbus has not identified any mitigation projects or initiatives apart from those included in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Columbus worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.6-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Columbus would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.6-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.6-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Columbus-001	Walt Phillips Rd Culvert replacement	1, 2, 4	Flood, Severe Storm, Road Wash-Out	Problem: The pipe currently in place on Walt Phillips Rd is too small to handle the spring runoff and any heavy rain events. Solution: The Town of Columbus will install an adequate pipe and wing walls for the amount of water that flows down the stream.	No	No	1 month	Town of Columbus	\$85,000	It would save the road from being washed out	FEMA FMA, Bridge NY	High	SIP	SP
2021-T. Columbus-002	Button Rd Culvert replacement	1, 2, 3, 4	Flood, Severe Storm	Problem: The pipe currently in place does not handle the spring run-off and any heavy rain events. We are consistently repairing the road due to the water overflow eroding the gravel from the road surface. Solution: A pipe large and wing walls large enough that allow enough water to flow through the pipe without overflowing onto the road surface is necessary to alleviate the problem.	No	No	1 month	Town of Columbus	\$85,000	Loss of highway that would trap the residence who live above the pipe on the dead-end road	FEMA, CHIPS	High	SIP	SP

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation

Cost:


The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:



Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- *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 manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NSP)* – These are actions that minimize damage and losses, and also 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

CRS Category:

- *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 also 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 9.6-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Columbus-001	Walt Phillips Rd Culvert replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021-T. Columbus-002	Button Rd Culvert replacement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.6.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.6-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood		001, 002							001, 002	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001, 002							001, 002	
Severe Winter Storm										
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.6.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Columbus followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Highway Department and Supervisor's Office. The Highway Superintendent represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

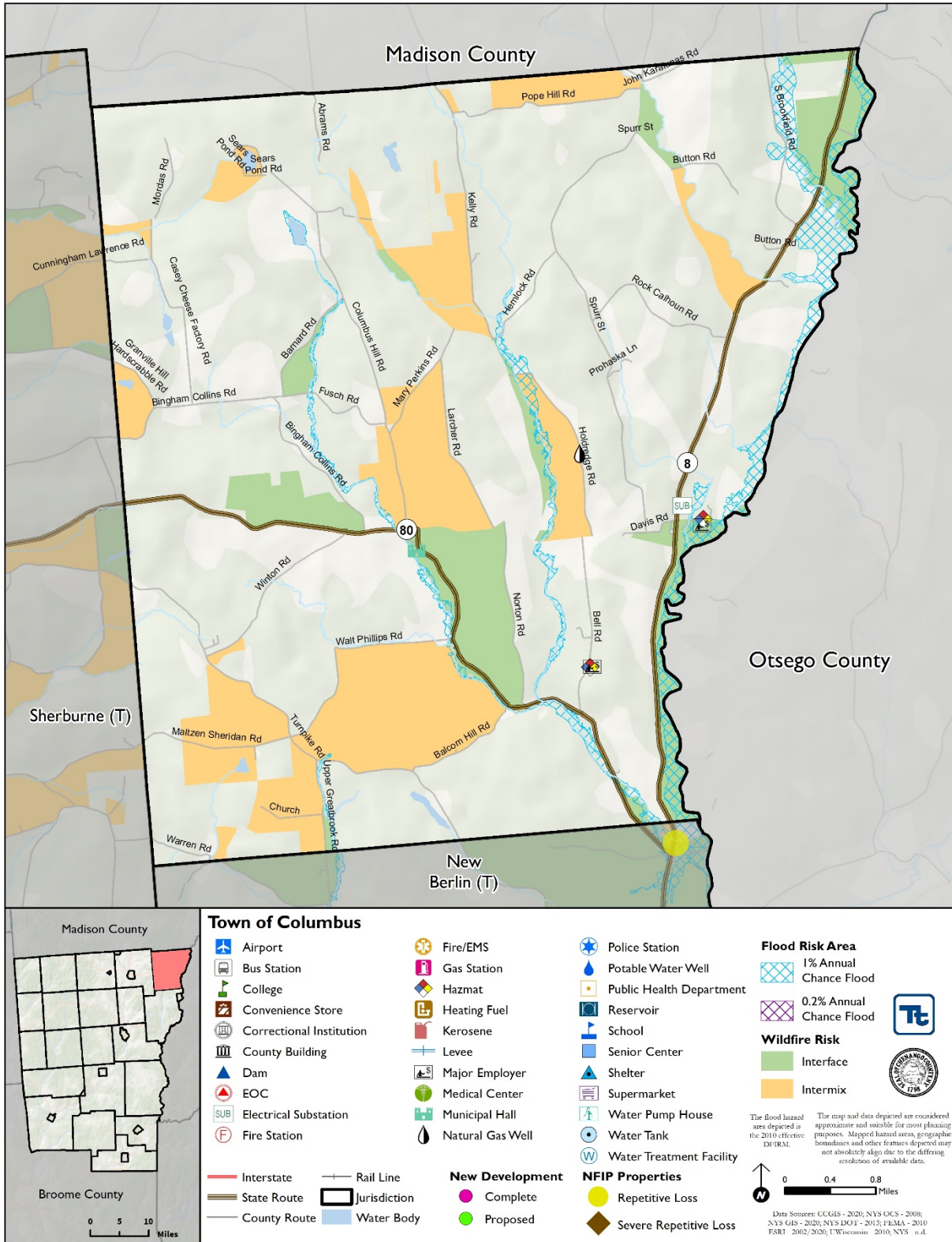
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.6.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Columbus that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Columbus has significant exposure. The map is illustrated below.



Figure 9.6-1. Town of Columbus Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Walt Phillips Rd Culvert replacement		
Project Number:	2021-T. Columbus-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flooding and road wash out		
Description of the Problem:	The pipe currently in place on Walt Phillips Rd is too small to handle the spring run off and any heavy rain events		
Action or Project Intended for Implementation			
Description of the Solution:	We would like to install an adequate pipe and wing walls for the amount of water that flows down the stream		
Is this project related to a Critical Facility?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	It would save the road from being washed out
Useful Life:	50 years	Goals Met:	1, 2, 4
Estimated Cost:	\$85,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6 months or less
Estimated Time Required for Project Implementation:	1 month	Potential Funding Sources:	FEMA
Responsible Organization:	Town of Columbus	Local Planning Mechanisms to be Used in Implementation if any:	DEC, Soil and Water, Highway Superintendent
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Replace culvert with bridge	N/A	Too expensive, not cost effective
	Relocate roadway	N/A	Walt Phillips Rd is a critical roadway for the Town and connects to highway – unfeasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Walt Phillips Rd Culvert replacement	
Project Number:	2021-T. Columbus-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	If the pipe washes out the fire department and ambulances cannot get through. The road would be closed.
Property Protection	1	The highway would be washed out
Cost-Effectiveness	1	Replacing with a bridge would be far too expensive
Technical	1	Plans are in place for it to be done
Political	1	Many vehicles use the road daily
Legal	1	Yes, it is part of highway maintenance
Fiscal	1	This project would put a large stress on the local taxpayers without outside sources
Environmental	1	This is a certified trout stream. If the pipe is not replaced, it will muddy the water and the stream will fill with gravel
Social	1	Without completing the project, a large amount of traffic would get cut off including vehicle traffic and agricultural vehicles
Administrative	1	The highway department can complete the project
Multi-Hazard	1	Multiple, from vehicle traffic, environmental, and safety
Timeline	1	Should take 1 month
Agency Champion	1	The town board, community, and highway dept would like it completed
Other Community Objectives	1	Travel, commerce, and safety concerns would be addressed
Total	14	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Button Rd Culvert replacement		
Project Number:	2021-T. Columbus-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Pipe failure and road wash out		
Description of the Problem:	The pipe currently in place does not handle the spring run-off and any heavy rain events. We are consistently repairing the road due to the water overflow eroding the gravel from the road surface.		
Action or Project Intended for Implementation			
Description of the Solution:	A pipe large and wing walls large enough that allow enough water to flow through the pipe without overflowing onto the road surface is necessary to alleviate the problem.		
Is this project related to a Critical Facility?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	Loss of highway that would trap the residence who live above the pipe on the dead-end road
Useful Life:	50 years	Goals Met:	1, 2, 3, 4
Estimated Cost:	85000.00	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6 months or less
Estimated Time Required for Project Implementation:	1 month	Potential Funding Sources:	FEMA, CHIPS
Responsible Organization:	Town of Columbus	Local Planning Mechanisms to be Used in Implementation if any:	DEC, Soil and Water, Highway Superintendent
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Replace culvert with bridge	N/A	Too expensive, not cost effective
	Relocate roadway	N/A	Would displace residents, not possible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Button Rd Culvert replacement	
Project Number:	2021-T. Columbus-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	If the pipe fails it will trap residence with no way out of their homes
Property Protection	1	The road would be washed out, leaving no way for people to get out or emergency vehicles to gain access
Cost-Effectiveness	1	Very cost effective as being a dead-end road, there is no way for people to have access to their property
Technical	1	The pipe could be changed by the highway department
Political	1	There is support on the political level to improve the pipe
Legal	1	The highway dept has the responsibility to maintain the structure
Fiscal	1	The project would put the town taxpayers at a strain on our budget
Environmental	1	The pipe is located on a certified trout stream, it will muddy the water if it fails
Social	1	If the pipe fails, the two businesses on the road would not be able to operate
Administrative	1	The highway department could change the pipe or contract the work to be done
Multi-Hazard	1	Multiple travel interruption and environmental impacts
Timeline	1	Can be completed in 2 years
Agency Champion	1	The town officials and residents support highway improvements
Other Community Objectives	1	Business, travel, and safety concerns would be addressed
Total	14	
Priority (High/Med/Low)	High	



9.7 Town of Coventry

This section presents the jurisdictional annex for the Town of Coventry. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Coventry's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.7.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Coventry's hazard mitigation plan primary and alternate points of contact.

Table 9.7-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Jennifer Boudreau, Town Supervisor 1839 State Highway 235 Greene, NY 13778 607-226-1418 coventrysupervisor2020@gmail.com	None identified
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.7.2 Municipal Profile

The Town of Coventry is located eight miles east of Greene and 8 miles west of Bainbridge on NYS RTE 206 in the south-central part of Chenango County, primarily the hilly part of the County. Coventry is located on a ridge forming a watershed with streams flowing into the Chenango River on the Northwest and the Susquehanna River on the Southeast. The highest elevation is approximately 800 feet. The soil is sandy/gravelly loam, suitable for grazing and all tillable land.

Early industry included cheese and butter factories, Blacksmith shops, sawmills, Tannery and Four Churches. Coventry was settled in 1785 and incorporated in 1806. There were four general stores, two hotels, a town baseball team, and the 114TH Regiment Band. In the early to mid 20TH Century the Coventry Creamery was in operation and as well as several light manufacturing businesses. Today the Town is basically comprised of residential, some farming, one general store and some light manufacturing.

The Town of Coventry is governed by an elected five member Town Board composed of a Town Supervisor, who also represents the town at the County Board of Supervisors, and four (4) Council members. This governing body will assume responsibility for adoption and implementation of this plan.

According to the U.S. Census, the 2010 population for the Town of Coventry was 1,655. The estimated 2018 population was 1,601, a 3.3 percent decrease from the 2010 Census. Data from the 2018 U.S. Census American Community Survey indicate that 5.8 percent of the population is 5 years of age or younger and 17.0 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.



9.7.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.7-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.7-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.7-2. Recent and Expected Future Development

Type of Development	2014		2015		2016		2017		2018	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	-	0	-	-	0	-	0	-
Multi-Family	0	-	-	0	-	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	-	0	-	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
Recent Major Development and Infrastructure from 2015 to Present										
Leatherstocking Natural Gas Pipeline (see details following)	Commercial	N/A		TBD		TBD		Cancelled		
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

Note: Leatherstocking Natural Gas – Proposed pipeline from Bainbridge to Greene, NY following NYS Route 206. This project has the support of Empire State Development with the anchor customer being the Raymond Corporation. The Village of Greene, portions of the town and customers along route 206 would all receive natural gas supply. Construction is contingent upon construction of the Constitution Pipeline.

9.7.4 Capability Assessment

The Town of Coventry performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and



each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.7.4). The Town of Coventry identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy. Appendix G provides the results of the planning/policy document review and the answers to integration survey questions.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Coventry and where hazard mitigation has been integrated.

Table 9.7-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	Yes	-	Local	Code Enforcement; Planning Board	No	No	N/A
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	-	Local	Local Planning Board	No	No	N/A
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	Yes	Title 6, Ch. X,17-7,8,70	Local	Not Indicated	Yes	No	N/A
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-2021
Comment:							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	Yes	-	Local	Local Planning Board	No	No	N/A
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	Adopted 1/1981, Revised 10/1989 – Amended 4/10/2019	Local	Local Planning Board	No	No	N/A
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc. Adopted January 1981; Revised October 1989 Duly passed by the Town Board on April 10, 2019. Town of Coventry Local Law No. 2 of the Year 2019, A Local Law Amending The Town of Coventry's Site Plan Review Law (As Previously Amended). The Town of Coventry requires site plan review of proposed uses, and impose penalties for violations thereof, and otherwise adopt laws, rules and regulations that advance and protect the health, safety, and welfare of the community.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	?	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Adopted 1987, Amended 10/13/2010	Local, State, Federal	Administered by County Code Official under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> A local law for Flood Damage Prevention as authorized by the New York State Constitution, Article IX, Section 2, and Environmental Conservation Law, Article 36. The Town Board of the Town of Coventry finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Coventry and that such damages may include destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> (1)regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
<p>(6) qualify and maintain for participation in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of Special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. Standards have been established for all new subdivision proposals and other proposed development in areas of special flood hazard New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	Not Indicated	Yes	No	N/A
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	Yes	NYS Executive Law, Article 75	Local	Not Indicated	Yes	No	N/A
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	Local	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	Yes	-	Local	-	No	-	-
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	See Below	Local	-	No	-	-
Comment: Junkyard Ordinance November 1966, Revised August 1995 Refuse Ordinance. 6/17/1974 Sanitary Code 2/1975, Revised 8/1986 Telecommunications Regs 2001 Town of Coventry Right to Farm Law. Local Law No. 1 of the year 2009 - The Town Board recognizes that farming is an essential enterprise and an important industry that enhances the economic base, natural environment and quality of life in the town of Coventry.							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	No	-	Local	-	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	No	-	Local	-	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Agriculture Plan	Yes	Right to Farm Law, September 9, 2009	Local	Town Board	Yes	Yes	N/A
Comment: The Town of Coventry Right to Farm Law ensures the use best agricultural practices to reduce environmental degradation.							
Other (tourism, business dev, etc.)	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Chenango County OEM	Yes	Yes	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	Local OEM	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment: Emergency Response Plan							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	No	-	Local	-	No	-	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

**Table 9.7-4. Development and Permitting Capability**

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	No
Permits are tracked by hazard area. For example, floodplain development permits.	No
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Coventry.

Table 9.7-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	No	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer For Highway, Drainage Support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contact if Necessary
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	MOU with Chenango County NFIP Floodplain Administrator
Surveyor(s)	Yes	County Highway Dept. if manpower is available
Emergency Manager	Yes	Chenango County Emergency Management Office in Conjunction with Coventry Vol. Fire Co
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Coventry.



Table 9.7-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Coventry.

Table 9.7-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Not indicated
Warning systems for hazard events; if yes, briefly describe.	Not indicated
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Not indicated
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Coventry.

Table 9.7-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A



Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other			

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.7-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Drought	Medium
Disease Outbreak	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Coventry.

Table 9.7-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss	# RL Properties	# SRL Properties	# Policies in the
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			Payments			1% Flood Boundary
Town of Coventry	6	5	\$34,641	2	-	1

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Coventry has its own Planning Board that approves Land Subdivisions and Site Plan reviews.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Cortland has completed Community Assistance Visits (CAV), with the most recent visit completed in 1993.

Regulatory

The Town of Coventry's Flood Damage Prevention Ordinance (FDPO) was last updated on November 23, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- Consider participation in incentive-based programs such as CRS.
- Enhance Storm water management by increasing the size and capacity of culverts and retrofit roadways in areas that could have the potential of flooding from severe and winter storms.
- Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads: Wylie-Horton, Moran and Seymour Hill especially. These are often flooded creating hazardous.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.



Evacuation Routes

SR-235 has been identified as a possible evacuation route.

Sheltering

Town Hall, and churches throughout the Town can be used as sheltering locations.

Temporary Housing

The Town of Coventry has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of Coventry did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.7.5 Hazard Event History Specific to the Town of Coventry

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Coventry's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.7-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.7-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 18, 2019	Severe Storm	No	Severe thunderstorms producing strong winds were reported throughout the area.	A tree was downed as a result of the wind at 1836 SR-235 near Park Place, causing an estimated \$5,000 in property damages.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.7.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Coventry's risk assessment results and data used to determine the hazard ranking.



A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.7-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None Identified				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Coventry. The Town of Coventry has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.



During the review of the hazard/vulnerability risk ranking, the Town of Coventry indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.7-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	High	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

**The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality*

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The Town of Coventry has an ongoing stream problem as a result of the many recent flooding events. Many streams have silted in the normal channels and therefore have eroded new channels that direct the stream water directly in the roadway infrastructure, weakening the embankments, creating elevated erosion and a safety risk as to the integrity of the roadway. This has been increasingly evident on: Cueball Rd., Hall Rd., Ives Rd., and two areas along Owlville Rd.
- The water flow through the culvert on Cohoon Rd. has been severely compromised from the increased flooding and run-off in the area. Flooding has reduced the natural absorbents in the watershed, resulting in streams running faster on stone and bedrock. In addition the Cohoon Rd. culvert is affected by the many beaver dams on private property (along east side of Co. Rte. 9, south of NYS Rte. 206) that retain millions of gallons of water which when overflowing contribute to erosion of the stream bed, build-up of debris plugging many culverts, and resulting in washed out roadways.
- No backup generator at Town Hall

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- No Response

9.7.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.7-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
TCV-1	Cohoon Road Culvert and Headwall Improvements	Flood	Town of Coventry – Highway Department	Remove existing culvert and replace with larger culvert and concrete headwalls to allow stormwater to pass through without restriction. Upsizing the culvert would prevent pooling and slowing of the waters as it passes through. In addition concrete headwalls would eliminate erosion of the road infrastructure.		Level of Protection		
						Damages Avoided; Evidence of Success		
TCV-2	Owlville Road Culvert and Headwall Improvements	Flood	Town of Coventry	Remove existing culvert and replace with larger culvert and concrete headwalls to allow storm run-off to pass through without restriction. The existing culvert does not have the capacity to allow stream waters to flow through, slowing the current and pooling the water on the inlet side of the culvert. The turbulent waters erode the inlet area which collapses into the stream, weakening the infrastructure of the road base and damaging the road surface when the water builds up flowing across the road. As the water speeds up through the culvert the outer embankments erode, collapsing the stream.		Cost		
						Level of Protection		
						Damages Avoided; Evidence of Success		
TCV-3	Cueball Road Culvert and Headwall Improvements	Flood	Town of Coventry	The existing culvert was replaced in 2006 and does not adequately allow stream waters to flow. The replacement culvert slows the current creating pooling of the water on the inlet side of the culvert. The turbulent waters build up eventually flowing over the road surface eroding the outlet and collapsing the embankment. Consequently weakening the infrastructure of the road base and damaging the road surface.		Cost		
						Level of Protection		
						Damages Avoided; Evidence of Success		



SECTION 9.7: Town of Coventry

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TCV-4	Hall Road Channel Rehabilitation	Flood	Town of Coventry, Chenango County Soil and Water	To eliminate this problem it would require access to a protected stream with equipment to clean the stream bed, redirecting the water back into the original channels away from the side of the road.		Cost		
						Level of Protection		
						Damages Avoided; Evidence of Success		
TCV-5 (Former TCV-1)	Stormwater Management Upgrades	Flood, Severe Storms, Severe Winter Storms	Town Highway Department, Chenango County Soil/Water, NYSDEC	Enhance storm water management by increasing the size and capacity of culverts, and retrofit roadways in areas that could have the potential of flooding from severe and winter storms. Specific areas, in addition to those identified above, include: <ul style="list-style-type: none"> Buckley Hill Road Bowbell Road Davy Road Wyle-Horton Road		Cost		
						Level of Protection		
						Damages Avoided; Evidence of Success		
TCV-6 (Former TCV-2)	Beaver Dam Monitoring and Control	Flood	NYSDEC, Town of Coventry Highway Department	Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads: Wylie-Horton, Moran and Seymour Hill especially. These are often flooded creating hazardous conditions.		Cost		
						Level of Protection		
						Damages Avoided; Evidence of Success		
TCV-7 (Former TCV-3, -4)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none"> Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to include: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification. Public education and awareness program for floodplain residents. Updates to NFIP floodplain mapping. Promotion of "Firewise" programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above		Cost		
						Level of Protection		
						Damages Avoided; Evidence of Success		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
TCV-8	Support the mitigation of vulnerable structures via	Flood, Severe Weather Wildfire, Severe Winter Weather	Engineering via NFIP FPA with NJOEM, FEMA support	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or acquisition/relocation to protect structures from future damage, with repetitive loss (1 identified) and severe repetitive loss (none in Town) properties as a priority when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option (in progress). Phase 2: Work with the property owners to implement selected action based on available funding and local match availability.		Level of Protection		
						Damages Avoided; Evidence of Success		
						Level of Protection		
						Damages Avoided; Evidence of Success		



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Coventry has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- None Identified

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Coventry worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.7-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Coventry would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.7-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.7-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Coventry-001	Wylie-Horton Rd Culvert	1, 2, 3, 4	Flood, Severe Storm	Problem: Wylie-Horton Rd has experienced historic wash outs after severe storms.	No	No	Short, 6 months	Coventry Highway Department	Medium	High	Municipal budget, tax revenues	High	SIP	PP
				Solution: The Town will replace the existing culvert with a larger, wider culvert to sufficiently handle the anticipated water flows and reduce flooding and road closures.										
2021-T. Coventry-002	Cahoon Rd Culvert	1, 2, 3, 4	Flood, Severe Storm	Problem: The culvert on Cahoon Road is undersized and the road has experienced historic flooding.	No	No	Short, 6 months	Coventry Highway Department	Medium	High	Municipal budget, tax revenues	High	SIP	PP
				Solution: The Town will replace the existing culvert with a larger, wider culvert to sufficiently handle the anticipated water flows and reduce flooding and road closures.										
2021-T. Coventry-003	Intermediate Hazard Dam Outreach	1, 2, 3, 4, 5, 7	Flood	Problem: The privately-owned James Vance Wildlife Dam and Vanista Hollow Pond Dam are both classified as "intermediate hazard" Class B.	Yes	No	Short, 6 months	Town of Coventry	Low to conduct outreach and support	High	Municipal budget, tax revenues	High	EAP	PR
				Solution: The Town of Coventry will conduct outreach to the dam owner about the condition of the dam and potential risks posed by a dam failure and support an inspection plan of the dam by an engineer in accordance with the existing EAP and NYSDEC Dam Safety guidelines. If significant risk is found, the Town will aid in the development of an updated EAP if necessary.										
2021-T. Coventry-004	Town Hall generator	1, 3, 5, 7	All Hazards	Problem: The Coventry Town Hall does not have an emergency backup generator.	Yes	No	Short, depending on funding	Town of Coventry	High	High	FEMA HMA	High	SIP	ES
				Solution: The Town will seek funding to install a permanent, automatic emergency generator at Town Hall to ensure the function of government at all times. The Town will ensure additional protections to the generator										



Table 9.7-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				so that is it protected from hazard events (flooding, severe storms, winter storms, etc.) that may damage the generator.										

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.7-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Coventry-001	Wylie-Horton Rd Culvert	1	1	1	0	0	1	0	1	1	1	1	1	1	0	10	High
2021-T. Coventry-002	Cahoon Rd Culvert	1	1	1	0	0	1	0	1	1	1	1	1	1	0	10	High
2021-T. Coventry-003	Intermediate Hazard Dam Outreach	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High
2021-T. Coventry-004	Town Hall generator	1	0	1	1	1	1	0	1	1	1	1	1	1	0	11	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.7.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.7-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak		004								004
Drought		004								004
Extreme Temperatures		004								004
Flood		001, 002, 004		003	003	001, 002				004
Harmful Algal Bloom		004								004
Invasive Species		004								004
Natural Gas		004								004
Severe Storm		001, 002, 004				001, 002				004
Severe Winter Storm		004								004
Wildfire		004								004

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.7.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Coventry followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Supervisor's Office and Town Board. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

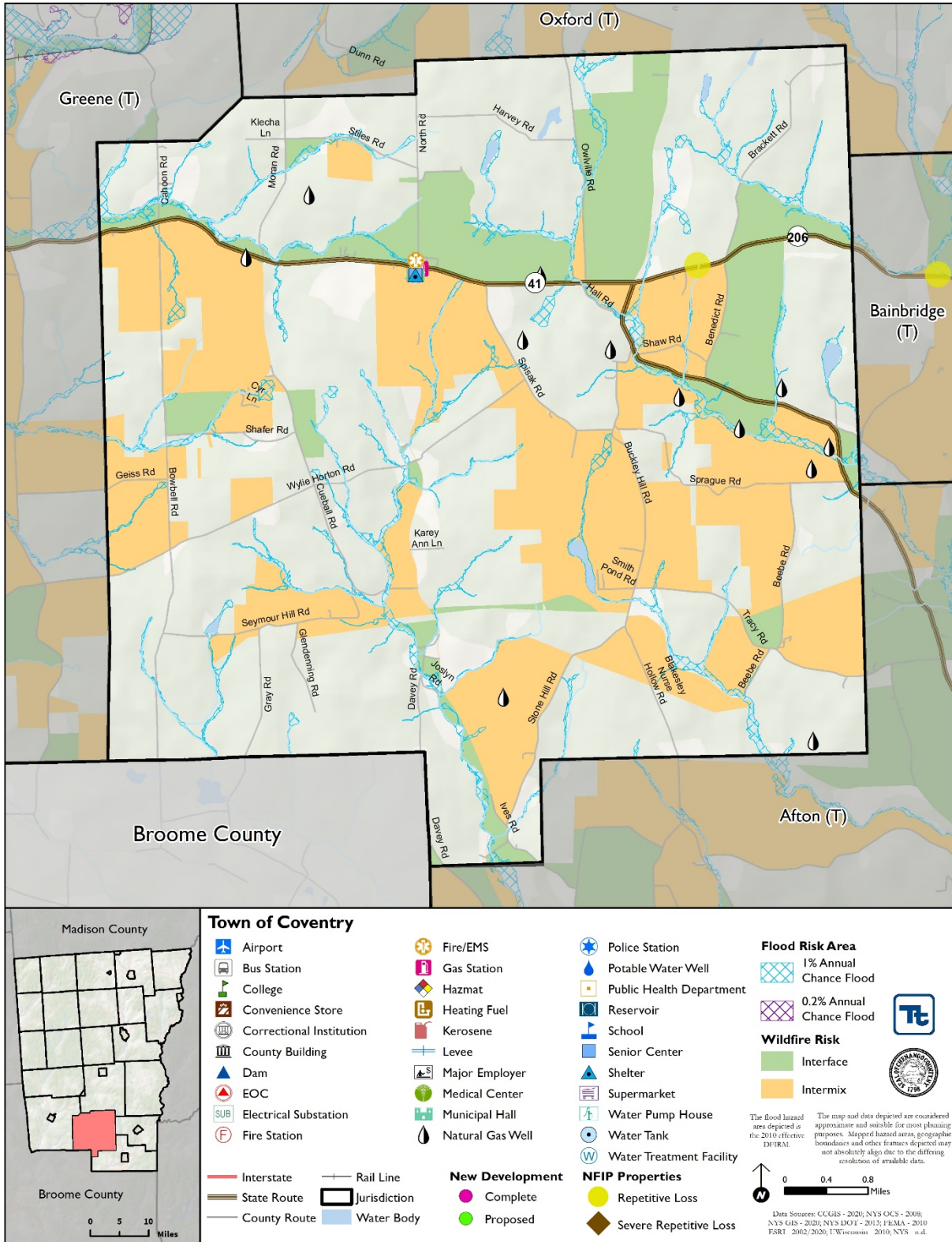
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.7.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Coventry that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Coventry has significant exposure. The map is illustrated below.



Figure 9.7-1. Town of Coventry Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	2021-T. Coventry-001		
Project Number:	Wylie-Horton Rd Culvert		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Wylie-Horton Rd has experienced historic wash outs after severe storms.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will replace the existing culvert with a larger, wider culvert to sufficiently handle the anticipated water flows and reduce flooding and road closures.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	Reduce flooding and road closures
Useful Life:	50 years	Goals Met:	2, 4
Estimated Cost:	Medium \$40,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 1 year
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	Municipal budget, tax revenues
Responsible Organization:	Coventry Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Raise roadway	\$1M+	Not cost effective, would create additional issues
	Close section of road permanently	N/A	Unfeasible. Flood concerns would still exist and will cut off residents and businesses
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. Coventry-001	
Project Number:	Wylie-Horton Rd Culvert	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Traffic safety
Property Protection	1	Prevention of Destruction of flooding
Cost-Effectiveness	1	Prevention of future damage
Technical	0	None
Political	0	None
Legal	1	Safety of road way for public
Fiscal	0	None
Environmental	1	Better flow of water
Social	1	None
Administrative	1	None
Multi-Hazard	1	Safety
Timeline	1	Depend on weather and number of workers
Agency Champion	1	Highway Supervisor
Other Community Objectives	0	None
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	2021-T. Coventry-002		
Project Number:	Cahoon Rd Culvert		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	The culvert on Cahoon Road is undersized and the road has experienced historic flooding.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will replace the existing culvert with a larger, wider culvert to sufficiently handle the anticipated water flows and reduce flooding and road closures.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	Reduce flooding and road closures
Useful Life:	50 years	Goals Met:	2, 4
Estimated Cost:	Medium \$40,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 1 year
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	Municipal budget, tax revenues
Responsible Organization:	Coventry Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Alternatives:	Action	Estimated Cost
	No Action	No Action	\$0
		Raise roadway	\$1M+
		Close section of road permanently	N/A
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. Coventry-002	
Project Number:	Cahoon Rd Culvert	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Traffic safety
Property Protection	1	Prevention of Destruction of flooding
Cost-Effectiveness	1	Prevention of future damage
Technical	0	None
Political	0	None
Legal	1	Safety of road way for public
Fiscal	0	None
Environmental	1	Better flow of water
Social	1	None
Administrative	1	None
Multi-Hazard	1	Safety
Timeline	1	Depend on weather and number of workers
Agency Champion	1	Highway Supervisor
Other Community Objectives	0	None
Total	10	
Priority (High/Med/Low)	High	



9.8 Village of Earlville

This section presents the jurisdictional annex for the Village of Earlville. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Village participated in the planning process; an assessment of the Village of Earlville's risk and vulnerability; the different capabilities utilized in the Village; and an action plan that will be implemented to achieve a more resilient community.

9.8.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Village of Earlville's hazard mitigation plan primary and alternate points of contact.

Table 9.8-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Dale Wissenbach, DPW 8 N. Main St. Earlville, NY 13332 315-691-7000 earlilledpw@gmail.com	Kelly Beach, Village Clerk 8 N. Main St, Earlville, NY 13332 315-691-2121 villageofearlville@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1796 stevenF@co.chenango.ny.us	

9.8.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Village was 872.

Earlville is in the northern Chenango River Valley, on NYS Rt.12B within both Chenango and Madison Counties. It is bordered on the west by the Chenango River, on the east by the Sanger River. Elevation is 1100 feet above sea level, on a plateau high enough above both rivers to have a minimum flood plain area, with no structure or living units in the flood plain.

Norwich is 17 miles south, Utica is 35 miles northeast, Syracuse is 45 miles northwest, Oneida is 22 miles north.

Earlville was settled in the late 1790's, grew with the coming of the Chenango Canal and 3 railroads, and incorporated in 1887. Industries have included milk receiving stations, wagon works, cattle auction, perfume factory, bleacher factory and paper box factory. Most industries are now gone. Residents work out of town. Earlville is now a bedroom community.

Most manufacturing operations have left Earlville. In 2014 there is one paper box factory, one grocery store, one hardware store, three eating establishments, on saloon, one convenience store/gas station, four auto repair shops, one antique shop, The Earlville Opera House, one bank, and a post office. There is limited opportunity for local people.

The one remaining railroad has been non-functional since rail bed flooding occurred south of Sherburne, Norwich and Oxford some years ago and further washout in Earlville in 2013.



Earlville is governed by an elected Village Board consisting of the Mayor and 4 Trustees. The Village Clerk is appointed by the Board.

The Department of Public Works has traditionally 2 full time employees appointed by the Village Board. There is an occasional temporary or part-time help as needed. The DPW is responsible for maintaining village streets, parks and village property. DPW shares services with neighboring municipalities.

The Earlville Fire Department is well-equipped and provides fire protection in the village and surrounding fire protection districts as contracted. There are 22 active members, many work outside the village resulting in occasional manpower shortage and slow response time. Mutual aid with neighboring fire departments is in effect.

Sherburne-Earlville central School in Sherburne (5 miles) provides K-12.

Police coverage is provided by NY State Police and Madison and Chenango County Sheriff Departments.

The Village has a Building codes Officer (appointed) and Planning Board.

9.8.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.8-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.8-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.8-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
Dollar General	Commercial		1		72 S. Main St.		Wildfire Interface Area		Complete	
Madison Lane Storage	Commercial		3 Units		72 S. Main St.		Wildfire Interface Area		Complete	
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.8.4 Capability Assessment



The Village of Earlville performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.8.4). The Village of Earlville identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Earlville and where hazard mitigation has been integrated.

Table 9.8-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Village of Earlville Code Enforcement	Yes	NA	NA
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan" ¹¹ or "in accordance with a comprehensive plan." ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Subdivision Regulations	No	-	Local	-	No	-	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	No	-	Local	-	Yes	-	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021- Chenango County- 2021
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	NA	NA
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	No	-	Local	-	No	-	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	Local Law #1 2005	Local	Village Code Enforcement	No		
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	?	Yes	NA	NA
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Adopted 1987, Amended 9/7/2010	Local, State, Federal	Administered by the Village of Earlville Code Official	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	NA
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Local Law No. 1 of the year 2010. A local law for Flood Damage Prevention as authorized by the New York State Constitution, enacted by the Village Board of the Village of Earlville. The Board of Trustees of the Village of Earlville finds that the potential 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<p>and/or actual damages from flooding and erosion may be a problem to the residents of the Village of Earlville and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life.</p> <p>It is the purpose of this local law to:</p> <ol style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program. <ul style="list-style-type: none"> The areas of special flood hazard for the Village of Earlville, Community Number 360397, are identified and defined on the following documents prepared by the Federal Emergency Management Agency namely, Flood Insurance Rate Map Panel Numbers: 36017C0081E, 36017C0082E whose effective date is, November 26, 2010. The Village of Earlville Codes Enforcement Officer is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4) Regulation	No	-	Federal	-	Yes	-	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	No	-	Local	-	Yes	-	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	-	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	Local	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	Local	-	No	-	-
Comment:							
Other Applicable Codes, Ordinances, & Requirements	No	-	-	-	-	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment:							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	No	-	Local	-	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	No	-	Local	-	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	No	-	Local	-	Yes	-	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations."							
Public Health Plan	No	-	Local	-	No	-	-
Comment:							
Other: Emergency Response Plan	No	-	Local	-	No	-	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							
Other: Special Purpose Ordinances (such as critical or sensitive areas)							
Comment: Emergency Response Plan. Earlville Fire District, County EMS, State Mandated							

Table 9.8-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Village Code Officer



Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Permits are tracked by hazard area. For example, floodplain development permits.	No
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Earlville.

Table 9.8-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	DPW
Mutual aid agreements	Yes	Adjoining Towns/Villages
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	Town/County Highway Engineer for highway, drainage Contracted
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract when necessary
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	County Soil & Water Agency
NFIP Floodplain Administrator (FPA)	Yes	County NFIP Administrator, MOU 2013
Surveyor(s)	Yes	Village DPW or Contracted
Emergency Manager	Yes	County Emergency Management in conjunction with Village Fire
Grant writer(s)	No	-
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Village of Earlville.

Table 9.8-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes



Financial Resources	Accessible or Eligible to Use (Yes/No)
Impact fees for homebuyers or developers of new development/homes	Yes, Building Permit fees
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	No
Open Space Acquisition funding programs	No
Other	

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Earlville.

Table 9.8-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Village of Earlville.

Table 9.8-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:



N/A Not applicable
 NP Not participating
 - Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.8-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	Medium
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use
 Medium Capacity may exist; but is not used or could use some improvement
 Low Capacity does not exist or could use substantial improvement
 Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Earlville.

Table 9.8-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Village of Earlville	0	0	\$0	0	-	0

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties

RL Repetitive Loss; SRL Severe Repetitive Loss



Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Village of Earlville has completed Community Assistance Visits (CAV), with the most recent visit completed in 1992.

Regulatory

The Village of Earlville Flood Damage Prevention Ordinance (FDPO) was last updated on September 7, 2010. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- The Village monitors and continues to cut and remove dead or damaged trees as needed.
- The Village coordinates with NYS DOT to complete roadwork and improvements on State roadways.
- The Village makes necessary roadway improvements and upsizes culverts as needed.
- The Village monitors abandoned cisterns and provides remediation when required.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

Evacuation routes are specific to hazard event and routes will vary according to the location and type of event. Residents should seek up-to-date information from the Chenango County Office of Emergency Management.

Sheltering

The Village has not designated emergency shelters but will evaluate the use of the municipal hall to serve as a warming/cooling center in the event of power outages. In the event that sheltering is needed shelters will be determined at the time of an emergency, in accordance with the County CEMP. Collaboration with Madison County Emergency Management may also occur depending on the needs of the Village.



Temporary Housing

The Village of Earlville has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Village will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Village of Earlville did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Village can utilize this analysis to identify potential locations.

9.8.5 Hazard Event History Specific to the Village of Earlville

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Village of Earlville's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.8-11 provides details regarding municipal-specific loss and damages the Village experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.8-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
October 7, 2020	Thunderstorm Wind	-	A cold front brought a wave of thunderstorms across Central New York. The Storms produced widespread tree and powerline damage throughout the area.	Strong thunderstorm winds brought down a tree on a vehicle on Thompson Hill Road, resulting in an estimated \$10,000 in property damages.

Notes:

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

9.8.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Village of Earlville's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.



- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.8-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None Identified				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Village of Earlville. The Village of Earlville has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Village of Earlville indicated the following:

- Agreement with calculated rankings – no changes made.

**Table 9.8-13. Hazard Ranking**

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Low	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Many old trees lining Village streets along right of way (ROW). Heavy winds, ice storms, poor condition of trees could cause trees to fall on power lines, roadways, structures causing seasonal injury, power failure, highway obstruction and property damage.
- NYS Rte. 12B, heavy thru traffic, many large trucks, stretches where roadside parking restricts traffic. Potential accidents involving large trees, hazardous materials, school buses, highway and service vehicles.
- Village streets: most are narrow creating the potential for restricting traffic for emergency vehicles and snow removal.
- Other hazards: Numerous abandoned cisterns throughout Village, location unknown potential to create sinkholes and accidents during construction projects.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- None Identified

9.8.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.8-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
VER-1	Identify and Remove Hazardous Trees	Severe Storm, Severe Winter Storm	Village DPW	Many old trees lining Village streets along ROW's. Heavy winds, rice storms, poor condition of trees could cause trees to fall on power lines, roadways, structures causing seasonal injury, power failure, highway obstruction and property damage.	Ongoing Capability	Cost	-	The Village will continue cutting trees as needed.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VER-2	NYS Rte. 12B Traffic Improvements	Severe Storm, Severe Winter Storm		Improve traffic control by adding increased police coverage, signage, etc. Heavy thru traffic, many large trucks, stretches where roadside parking restricts traffic. Potential accidents involving large trees, hazardous materials, school buses, highway and service vehicles.	Ongoing	Cost	-	The Village will continue to work with NYS Department of Transportation and alert NYSDOT if there is work that needs to be done.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VER-3	Village Streets Traffic Improvements	Severe Storm, Severe Winter Storm		Improve traffic control by adding increased police coverage, signage, etc. Widen Village streets for improved traffic flow and safety. Most are narrow creating the potential for restricting traffic for emergency vehicles and snow removal.	Ongoing Capability	Cost	-	The Village will continue to improve streets as needed.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
VER-4	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	The Village continuously supports State, Federal, and County initiatives.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VER-5	Locate and mitigate abandon cisterns in roadways or close proximity	Sinkholes		Numerous abandoned cisterns throughout Village. Potential to create sinkholes and accidents during construction projects.	Ongoing	Cost	-	The Village will continue to monitor abandoned cisterns and address as necessary.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Earlville has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- Replaced catch basins and culverts on Fayette Street and installed a new catch basin and culvert on Clyde Street.
- Paving and improving portions of Clyde, Preston, and Fayette Streets.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Earlville worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.8-15 summarizes the comprehensive-range of specific mitigation initiatives the Village of Earlville would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.8-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.8-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-V. Earlville-001	Water Tower Telemetry	1, 2, 4, 6, 7	Severe Storm, Flood	<p>Problem: During rainy weather events and extreme storms our underground/overhead telemetry cable sends erratic signals causing our two well pumps which alternate daily to malfunction causing chlorine levels to fluctuate and possibly causing improperly chlorinated public drinking water that could lead to unsafe drinking water.</p> <p>Solution: Replace existing telemetry lines with a wireless telemetry system (radio transceivers) at the water tower, the pumphouse and the wells This has been recommended by Aqua Logics Systems, Inc. a company that specializes in water system control and operations. The Town is currently working with Aqua Logics Systems to gather cost estimates and quotes to replace the equipment. The radio systems are much more reliable than traditional hardwired signals, particularly systems where the wiring is buried underground. It's very common that buried signal wiring fails due to water in the conduits, moisture and ultimately corrosion. Furthermore, equipment on each end of the metallic signal wiring is much more susceptible to damage caused by electrical surges/transient voltages, particularly during lightning storms as the metallic wiring provides a conductive pathway into the control equipment. When properly applied, the radio systems are much less susceptible to weather related outages as well as failures due to electrical surges. And of course all failures related to water, moisture and</p>	Yes	No	Short Term	Village of Earlville DPW	Medium; Aqua Logics estimated net price \$12,634	Continue to provide residents safe and reliable water service; Eliminate fees for use of the existing telephone poles and wires	FEMA Or NYSDHSES Grants	High	LPR; SIP	PR; ES



Table 9.8-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				corrosion associated with buried wires is no longer of concern.										
2021-V. Earlville-002	Village Office Relocation	2, 3, 4, 6	All Hazards	Problem: The Village office building currently houses the village offices, village court and the fire department is aged and is insufficient size for our current needs. Having outdated electrical and plumbing systems. We currently have to rent space for storage of files. Solution: Obtain grants and financing for a new facility at a new location to meet our current needs.	Yes	No	Short	Village of Earlville	Medium-High	High; To provide a safe and functional space. Discontinue renting storage for necessary files	USDA or NYSDHSES Grants	Medium	LPR; SIP	PR; PP
2021-V. Earlville-003	Village Office Generator	1, 3, 6, 7	All Hazards	Problem: The Village Office does not have sufficient backup power. Solution: The Village will seek funding to install a permanent, automatic emergency generator with sufficient capacity to provide power to the entire building during hazards and power outages. This will allow the Village Hal to be used as an emergency shelter or heating/cooling center when necessary. The Village will ensure additional protections to the generator so that it is protected from hazard events (flooding, severe storms, winter storms, etc.) that may damage the generator.	Yes	No	Short, depending on funding	Village of Earlville	Medium-High	High	FEMA HMA	High	SIP	ES

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV Community Assistance Visit
 CRS Community Rating System

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program
 HMGP Hazard Mitigation Grant Program

Timeline:

The time required for completion of the project upon implementation



DPW	Department of Public Works	PDM	Pre-Disaster Mitigation Grant Program
EHP	Environmental Planning and Historic Preservation	BRIC	Building Resilient Infrastructure and Communities
FEMA	Federal Emergency Management Agency		
FPA	Floodplain Administrator		
HMA	Hazard Mitigation Assistance		
N/A	Not applicable		
NFIP	National Flood Insurance Program		
OEM	Office of Emergency Management		


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.8-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-V. Earlville-001	Water Tower Telemetry	1	0	1	1	1	1	1	1	0	1	1	1	1	0	11	High
2021-V. Earlville-002	Village Office Relocation	0	1	1	1	1	1	-1	1	0	1	1	0	1	0	8	Medium
2021-V. Earlville-003	Village Office Generator	1	0	1	1	1	1	0	1	1	1	1	1	1	0	11	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.8.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.8-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA			CRS						
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak	002	002, 003			002	002				003
Drought	002	002, 003			002	002				003
Extreme Temperatures	002	002, 003			002	002				003
Flood	001, 002	001, 002, 003			001	002				001, 003
Harmful Algal Bloom	002	002, 003			002	002				003
Invasive Species	002	002, 003			002	002				003
Natural Gas	002	002, 003			002	002				003
Severe Storm	001, 002	001, 002, 003			001, 002	002				001, 003
Severe Winter Storm	002	002, 003			002	002				003
Wildfire	002	002, 003			002	002				003

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.8.9 Staff and Local Stakeholder Involvement in Annex Development

The Village of Earlville followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Village departments, including: Department of Public Works, Village Board of Trustees, Village Clerk's Office, Code Enforcement Office. The Department of Public Works represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

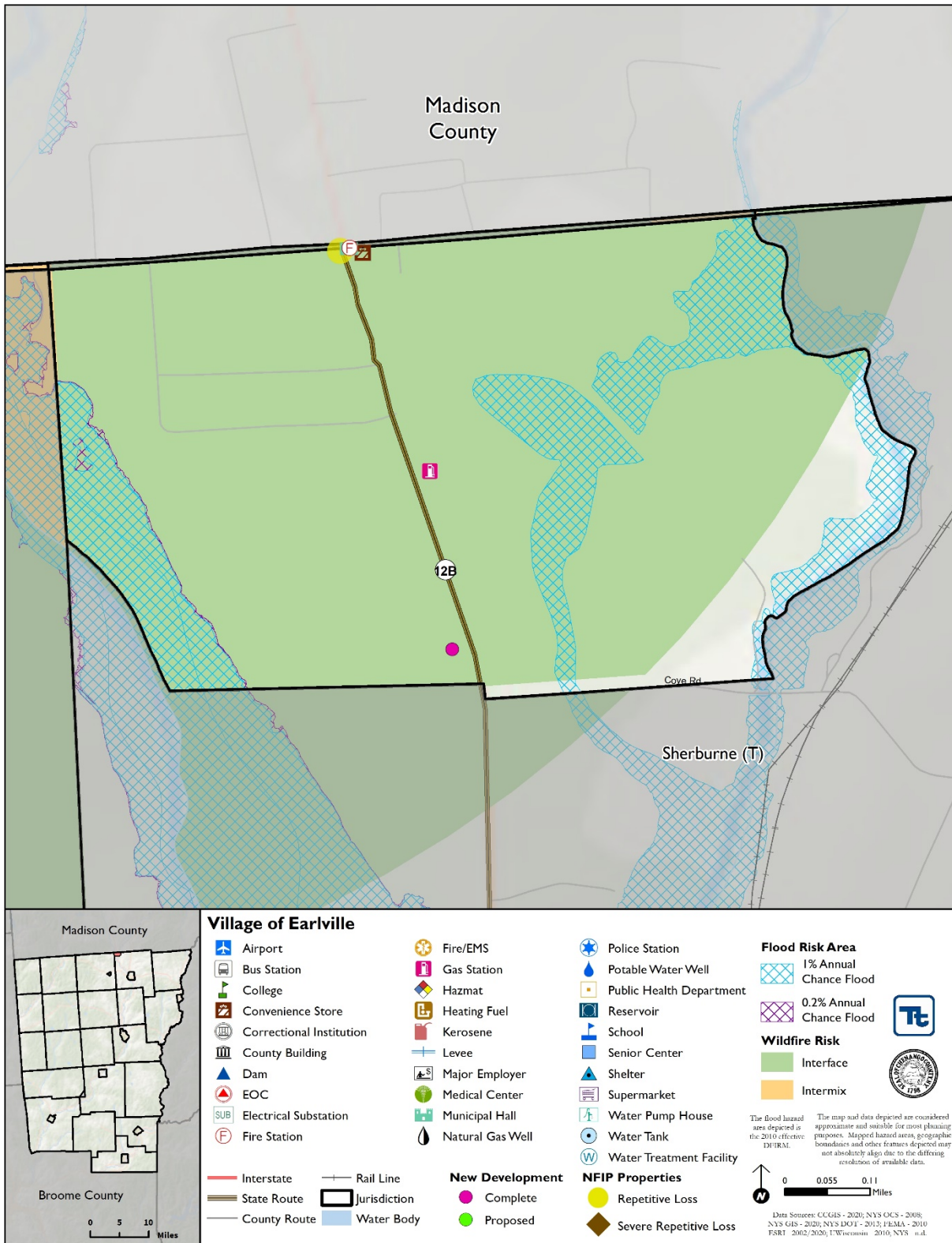
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.8.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Village of Earlville that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Earlville has significant exposure. The map is illustrated below.



Figure 9.8-1. Village of Earlville Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Water Tower Telemetry		
Project Number:	2021-V. Earlville-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Storms		
Description of the Problem:	During rainy weather events our underground/overhead telemetry cable sends erratic signals causing our two well pumps which alternate daily to malfunction causing chlorine levels to fluctuate and possibly causing improperly chlorinated public drinking water that could lead to unsafe drinking water.		
Action or Project Intended for Implementation			
Description of the Solution:	Replace existing telemetry lines with a wireless telemetry system (radio transceivers) This has been recommended by Aqua Logics Systems, Inc. a company that specializes in water system control and operations. The Town is currently working with Aqua Logics Systems to gather cost estimates and quotes to replace the equipment. The radio systems are much more reliable than traditional hardwired signals, particularly systems where the wiring is buried underground. It's very common that buried signal wiring fails due to water in the conduits, moisture and ultimately corrosion. Furthermore, equipment on each end of the metallic signal wiring is much more susceptible to damage caused by electrical surges/transient voltages, particularly during lightning storms as the metallic wiring provides a conductive pathway into the control equipment. When properly applied, the radio systems are much less susceptible to weather related outages as well as failures due to electrical surges. And of course all failures related to water, moisture and corrosion associated with buried wires is no longer of concern.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/> X	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> x
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Continue to provide residents safe and reliable water service Eliminate fees for use of the existing telephone poles and wires
Useful Life:	30+ years	Goals Met:	1, 2, 4, 6, 7
Estimated Cost:	\$12,634	Mitigation Action Type:	LRP, SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	< 1 Year
Estimated Time Required for Project Implementation:	Short term	Potential Funding Sources:	Revenue and/or grant funding
Responsible Organization:	Village DPW	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Replace Water System	\$5M+	Not cost effective or necessary
	Purchase in-home dichlorination systems for all residents	N/A	Not cost effective or feasible, will need additional maintenance/replacements
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Water Tower Telemetry	
Project Number:	2021-V. Earlville-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Safer Drinking water
Property Protection	0	
Cost-Effectiveness	1	Eliminate lease fees for existing wires
Technical	1	More reliable technology
Political	1	Village Board will approve
Legal	1	
Fiscal	1	Will need some funding
Environmental	1	
Social	0	
Administrative	1	DPW will maintain, need contractor to install
Multi-Hazard	1	
Timeline	1	< 2 months
Agency Champion	1	Has DPW and Village Board approval
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Village Office Relocation		
Project Number:	2021-V. Earlville-002		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	The Village office building currently houses the village offices, village court and the fire department is aged and is insufficient size for our current needs. Having outdated electrical and plumbing systems. We currently have to rent space for storage of files.		
Action or Project Intended for Implementation			
Description of the Solution:	Obtain grants and financing for a new facility at a new location to meet our current needs.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/> X	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> x
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	High ,to provide a safe and functional space. Discontinue renting storage for necessary files
Useful Life:	Permanent; 99 years	Goals Met:	2, 3, 4, 6
Estimated Cost:	Medium-High	Mitigation Action Type:	LRP, SIP
Plan for Implementation			
Prioritization:	Medium	Desired Timeframe for Implementation:	1-2 Years
Estimated Time Required for Project Implementation:	Short, within 5 years	Potential Funding Sources:	USDA or NYSDHSES Grants
Responsible Organization:	Village of Earlville	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate Current office building	\$5M+	Not cost effective and building is still undersized for needs
	Relocate files but not building	N/A	Digitizing or relocating files to another building does not reduce flood risk or ensure continuity of governmental operations
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Village Office Relocation	
Project Number:	2021-V. Earlville-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	0
Property Protection	1	Ensures continuity of government operations
Cost-Effectiveness	1	
Technical	1	
Political	1	Village Board will approve
Legal	1	
Fiscal	-1	Will need some funding
Environmental	1	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	0	
Agency Champion	1	
Other Community Objectives	0	
Total	8	
Priority (High/Med/Low)	Medium	



Action Worksheet			
Project Name:	Village Office Generator		
Project Number:	2021-V. Earlville-003		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	The Village Office does not have sufficient backup power.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village will seek funding to install a permanent, automatic emergency generator with sufficient capacity to provide power to the entire building during hazards and power outages. This will allow the Village Hall to be used as an emergency shelter or heating/cooling center when necessary. The Village will ensure additional protections to the generator so that it is protected from hazard events (flooding, severe storms, winter storms, etc.) that may damage the generator.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/> X	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> x
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Ensures continuity of government operations and creates heating/cooling center/shelter location
Useful Life:	30+ years	Goals Met:	1, 3, 6, 7
Estimated Cost:	Medium-High, \$60,000	Mitigation Action Type:	SIP, ES
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	1 Year
Estimated Time Required for Project Implementation:	Short term	Potential Funding Sources:	FEMA HMA
Responsible Organization:	Village of Earlville	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Install solar panels on roof	\$500,000	Does not ensure 24/7 power, not cost effective
	Purchase a portable generator for all Village facilities	\$40,000	Does not ensure continuity of operations at Village Hall, needs to be turned on, not cost effective to share generator across facilities
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Village Office Generator	
Project Number:	2021-V. Earlville-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures continuity of government operations, establishes heating/cooling center
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	Village Board will approve
Legal	1	
Fiscal	0	Will need some funding
Environmental	1	
Social	1	Community supports
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	



9.9 Town of German

This section presents the jurisdictional annex for the Town of German. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of German's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.9.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of German's hazard mitigation plan primary and alternate points of contact.

Table 9.9-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Daniel Jack, Town Supervisor PO Box 237, Cincinnatus NY 13040 607-656-4137 or 607-423-2941 dannyjack0504@gmail.com	Bob Turshman, Highway Superintendent 232 Fry Rd, Cincinnatus NY 13040 607-863-3227 or 607-863-4568 germantownbarn@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court Street Norwich, NY 13815 607-337-1975 StevenF@co.chenango.ny.us	

9.9.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 370.

The Town of German is located along the western border of Chenango County adjoining Cortland County. The primary County Roads 2 and 5 intersect at German Four corners.

The first settlers arrived in the area about 1796. The Town of German was founded as the "Town of Brackel" from the Town of DeRuyter in 1816. Thereafter it was reduced by the formation of Otselic, Lincklaen, and a part of Pitcher. A maximum population of between 800 and 1200 was achieved in the late 1800s followed by a gradual then precipitous decline in the 1930s. Today the Town of German comprises 28.4 mi², includes 39 miles of town roads to be maintained, and incorporates State Land totaling about 43% of the town's area.

A Town Board of four members is the primary governing body. The Town Supervisor provides a fifth voting member when necessary. This governing body will assume responsibility for adoption and implementation of this plan. The Offices of Town Clerk, Justice, Historian, Sanitary Inspector, Dog Control and Board of Assessors are provided.

9.9.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.9-2 summarizes recent and expected future development trends, including major residential/commercial



development and major infrastructure development. Figure 9.9-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.9-2. Recent and Expected Future Development

Type of Development	2014		2015		2016		2017		2018	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
Recent Major Development and Infrastructure from 2015 to Present										
None Identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None Identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.9.4 Capability Assessment

The Town of German performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.9.4). The Town of German identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy. Appendix G provides the results of the planning/policy document review and the answers to integration survey questions.



Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of German and where hazard mitigation has been integrated.

Table 9.9-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Codes, Ordinances, & Requirements							
Building Code	Yes	Adopted 5/2004 and 5/2005	Local, State	Planning Department	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017). Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 11/2004	Local	Town Board	No	No	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management	No	Subdivision Regulations	Local, State	NYSDEC permitting	Yes	-	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery	Yes	Not Indicated	Local	Chenango County EMS	No	-	-
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	No	-
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	No	-	Local	-	No	-	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Site Plan Review	Yes	Adopted 5/2004	Local	Town Manufactured Home Law	No	No	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	Not Indicated	Yes	No	-
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	Adopted 1987, Amended 11/11/2010	Federal, State, Local	Administered by County Code Official under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
<p>Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> Local Law of the year 2010 entitled Flood Damage Prevention, enacted by the Town of German. The Town Board of the Town of German finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of German and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; control filling, grading, dredging and other development which may increase erosion or flood damages; regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; qualify and maintain for participation in the National Flood Insurance Program. The areas of special flood hazard for the Town of German, Community Number 361587, are identified and defined on the following documents prepared by the Federal Emergency Management Agency, namely, Flood Insurance Rate Map Panel Numbers: 36017C0190E, 36017C0195E, 36017C0305E & 36017C0310E whose effective date is November 26, 2010. The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; <ol style="list-style-type: none"> Proposals shall be consistent with the need to minimize flood damage; Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. In order to prevent potential flood damage to certain facilities that would result in serious danger to life and health, or widespread social or economic dislocation, no new critical facility shall be located within any Area of Special Flood Hazard, or within any 500-year flood zone shown as a B zone or a Shaded X zone on the Community's Flood Insurance and implement this local law by granting or denying floodplain development pennits in accordance with its provisions. 							
Municipal Separate Storm Sewer System (MS4)	No	EPA Phase II Stormwater Rule	Federal	-	Yes	-	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Chenango County Office of Emergency Management	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change	No	NYS Executive Law, Article 75	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-2021
Comment:							
Disaster Reconstruction Ordinance	Yes	Not Indicated	Local	Chenango County EMS	No	No	-
Comment:							
Other	Yes	See Below	-	-	-	-	-
Comment:							
• Road Conservation Law. 1/2006							
Planning Documents							
Comprehensive Plan	No	General City Law section 28a(3)(a); Town Law section 272-a(2)(a); Village Law section 7-722(2)(a)	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	Not Indicated	State	NYS Dept of Environmental Conservation	No	No	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local, State	NYSDEC permitting	No	See above	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	NYS Constitution -	Local	-	Yes	-	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
		Article 9; Statute of Local Governments. Section 10 (7)					
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No		Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	-	-
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other (this could include a climate action plan, tourism plan, business development plan, etc.)	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Chenango County Office of Emergency Management	Yes	Yes	N/A



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	-	Local	Chenango County Office of Emergency Management	Yes	No	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other	Yes	-	-	-	-	-	-
Comment: • Emergency Response Plan							

Table 9.9-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Chenango County Codes
Permits are tracked by hazard area. For example, floodplain development permits.	Yes, Chenango County Codes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of German.



Table 9.9-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	County-wide mutual aid
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Chenango County Office of Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	Agreement with Inland Marine Corp. Chenango County Public Works Department
Planners or engineers with an understanding of natural hazards	Yes	Chenango County Office of Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Will Contract when Necessary
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Chenango County Office of Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil & Water Department
NFIP Floodplain Administrator (FPA)	Yes	Steve Fox, CFM
Surveyor(s)	Yes	Chenango County Public Works department
Emergency Manager	Yes	Chenango County Office of Emergency Management
Grant writer(s)	Yes	Chenango County Office of Planning & Development; Cornell Cooperative Extension, Norwich
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of German.

Table 9.9-6. Fiscal Capabilities

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



Financial Resources	Accessible or Eligible to Use (Yes/No)
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of German.

Table 9.9-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	Yes, Hired Company to manage
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes, Facebook
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Yes; Chenango County Office of Emergency Management
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Yes; Chenango County Office of Emergency Management
Other	No

Community Classifications

The table below summarizes classifications for community programs available to the Town of German.

Table 9.9-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	No	-	-

Note:

N/A Not applicable
 NP Not participating
 - Unavailable



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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.9-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of German.

Table 9.9-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of German	1	0	\$0	0	-	0

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.



Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town Board and Supervisor approve Land Subdivisions, per a 2005 amendment to the Town of German Subdivision Regulations.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of German has not completed any Community Assistance Visits (CAV), due to its location outside of the SFHA.

Regulatory

The Town of German Flood Damage Prevention Ordinance (FDPO) was last updated on November 11, 2010. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- The Town prohibits construction of structures within the 100-year floodplain.
- The Town maintains compliance and good standing with the NFIP.
- The Town works to maintain high regulatory standards to manage flood risk in accordance with NYS freeboard requirements.
- The Town maintains mutual aid agreements with neighboring communities and the County.
- The Town continues to develop, enhance, and implement existing emergency plans.
- The Town supports all county-wide and municipal initiatives identified in the HMP.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

Evacuation routes are specific to hazard event and routes will vary according to the location and type of event. Residents should seek up-to-date information from the Chenango County Office of Emergency Management.

Sheltering

The Town of German has not designated emergency shelters but will evaluate the use of the municipal hall to serve as a warming/cooling center in the event of power outages. In the event that sheltering is needed shelters will be determined at the time of an emergency, in accordance with the County CEMP.



Temporary Housing

The Town of German has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of German did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.9.5 Hazard Event History Specific to the Town of German

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of German's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.9-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.9-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 2018	Severe Flooding DR-4197	Yes	Flooding, washed out roads etc..	Damage to roads culvert etc..
October 2019	Severe Flooding	Yes	Flooding, washed out roads etc..	Damage to roads culvert etc..

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.9.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of German's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.



- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.9-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None identified				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of German. The Town of German has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of German indicated the following:

- Agreement with calculated rankings – no changes made.



Table 9.9-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Hazard problems in the Town of German are largely caused by flood damage to town roads and culverts.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- No Response

9.9.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.9-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
TGM – 1 (Former TGM-1)	Beaver Dam Monitoring and Control	Flood	Town Highway Department, NYS DEC for roads adjoining State land	Control the flooding effect of beaver dams on town roads by installing bridges in place of culverts and elevating roads in areas of chronic flooding. Though parts of Shingle St., Pheasant Farm and Jones Hill roads have been repaired/improved, work on them continues. New beaver activity as well as new damage to Jones Hill is continuing problems. While an ongoing project, bridge building and road elevation would require materials cost beyond town capability.	Ongoing Capability	Cost	-	It's Part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGM – 2 (Former TGM -2)	Continue multi-year plan	Severe Winter Storm, Severe Storm, Wildfire	Town Highway Department, NYS DEC for roads adjoining State land	Continue multi-year plan for removal of overgrown trees and new ditching on town roads right of ways, specifically on seasonal roads, for better sun penetration and road surface drying.	Ongoing Capability	Cost	-	It's Part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGM – 3 (Former TGM -3)	Continue the installation of larger road culverts	Flood, Severe Winter Storm, Severe Storm	Town Highway Department	Continue the installation of larger road culverts on all town roads to improve stormwater management	Ongoing Capability	Cost	-	It's Part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TGM – 4 (Former TGM -4)	Improve the ditching on all town roads	Flood, Severe Winter storm, Severe Storm	Town Highway Department, NYS DEC for roads adjoining State land	Improve the ditching on all town roads to increase stormwater management and road life. While an ongoing regular maintenance project exists, town personnel, funding and time do not this increasing problem to fully be addressed. Almost half of residential town roads have been re-ditched in the last five years. See specific activities below.	Ongoing Capability	Cost	-	It's Part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGM – 5	Large Culvert Replacement	Flood, Severe Storm, Severe Winter Storm	Town Highway Department	Excavate and evaluate culvert integrity, rebuild rock retaining walls and roadbed only if culvert structure is determined to be ok	Ongoing	Cost	-	The Town will continue culvert updates as part of the 2021 mitigation strategy. See mitigation actions below for more information.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGM – 6	Pheasant Farm Road Drainage Improvements	Flood, Severe Storm, Severe Winter Storm	Town Highway Department	Clear trees, raise roadbed, cut ditches.	Ongoing Capability	Cost	-	It's part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGM – 7	Jones Hill Road Drainage Improvements	Flood, Severe Storm, Severe Winter Storm	Town Highway Department	Continue to increase the number and size of culverts to reduce the speed of flow in the roadside ditches to relieve plugging and reduce road surface destruction in big storms. Work with residents to reduce	Ongoing	Cost	-	The Town will continue culvert updates as part of the 2021 mitigation strategy. See mitigation actions below for more information.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				drainage into the roadside ditches.				
TGM – 8	Highway Garage Mitigation	Flood, Severe Storm, Severe Winter Storm	Town of German Town Board and Highway Department	The Town is saving funds to either improve or replace its poor condition and undersized highway garage. Unfortunately, though the Town could borrow to fund construction, this would push the tax levy well beyond the 2% cap. Since grant funds are not available for municipal capital projects, it will be up to the townspeople to decide if the spending is acceptable.	Ongoing	Cost	-	Discontinue project.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGM – 9 (Former TGM -6, -7)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	It’s Part of the Town’s day-to-day operations	
					Level of Protection	-		
					Damages Avoided; Evidence of Success	-		
TGM-10	Fry Road Culvert	Flood, Severe Storm	Town of German – Highway Department	A large culvert must be replaced and enlarged soon to prevent road degradation during storms and flooding of	Ongoing	Cost	-	The Town will continue culvert updates as part of the 2021 mitigation strategy. See mitigation actions below for more information.
						Level of Protection	-	
						Damages Avoided;	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				two residences immediately below the intersection.		Evidence of Success		



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of German has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- None Identified

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of German worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.9-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of German would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.9-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.9-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. German-001	Birdlebough – Gramch Road Culverts	1, 2, 3	Flood, Severe Storm	Problem: Birdlebough – Gramch Road has experienced historic washouts of approximately five culvert pipes during heavy rains and storm events. Solution: The Town will increase the size of the five existing culverts from 11-13” to a more appropriate 24” diameter size that will be able to handle increased water flows and prevent washouts and road closures. The new pipe sizes will be able to handle the increased water without having to increase costs and elevate the roadway.	No	No	Short, 6 months	Highway Department	Medium, Estimated \$7,000/culvert plus labor and materials	High, reduce road washouts and floods	FEMA HMA	High	SIP	PP
2021-T. German-002	Smith-Kingsman Road Culvert	1, 2, 3	Flood, Severe Storm	Problem: Due to beaver issues and dam failures, the 3 foot culvert pipe on Smith-Kingsman Road has a tendency to overflow and erode the road. Solution: The Town will put in an additional 3 foot culvert pipe to help with water flow and eliminate flooding and erosion concerns. This pipe will have a screen due to the beaver debris.	No	No	Short, within 1 year	Highway Department	Medium	High, Reduce erosion concerns	FEMA HMA	High	SIP	PP

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.



NFIP National Flood Insurance Program
OEM Office of Emergency Management

Critical Facility:

Yes Critical Facility located in 1% floodplain

Mitigation Category:

- *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 manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NSP)* – These are actions that minimize damage and losses, and also 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

CRS Category:

- *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 also 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 9.9-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. German-001	Birdlebough – Gramch Road Culverts	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2021-T. German-002	Smith-Kingsman Road Culvert	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.9.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.9-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood		001, 002				001, 002				
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001, 002				001, 002				
Severe Winter Storm										
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.9.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of German followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Supervisor's Office. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

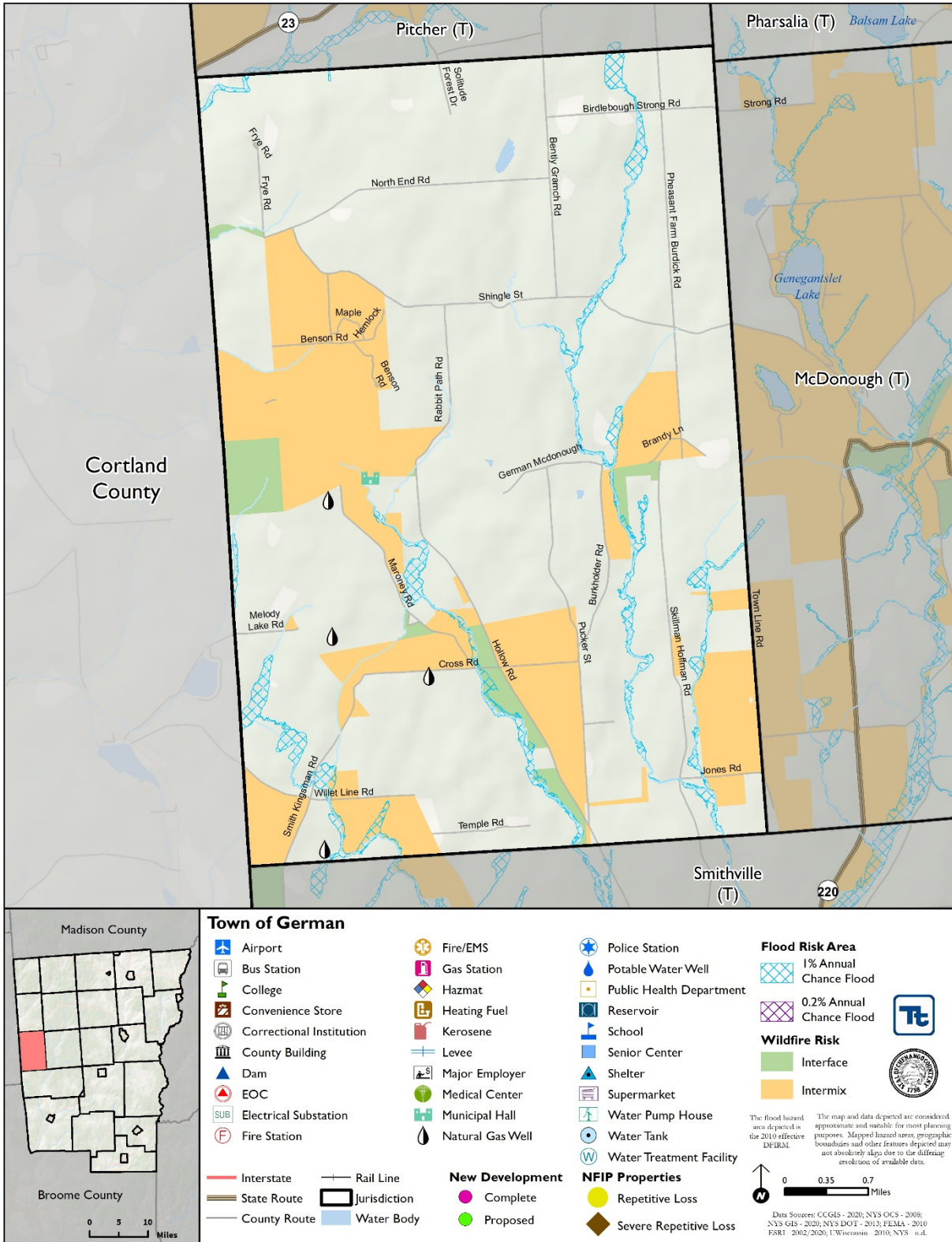
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.9.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of German that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of German has significant exposure. The map is illustrated below.



Figure 9.9-1. Town of German Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	2021-T. German-001		
Project Number:	Birdlebough – Gramch Road Culverts		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Birdlebough – Gramch Road has experienced historic washouts of approximately five culvert pipes during heavy rains and storm events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will increase the size of the five existing culverts from 11-13” to a more appropriate 24” diameter size that will be able to handle increased water flows and prevent washouts and road closures. The new pipe sizes will be able to handle the increased water without having to increase costs and elevate the roadway.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	N/A	Estimated Benefits (losses avoided):	High, reduce road washouts and floods
Useful Life:	40 years	Goals Met:	2, 3, 4, 6
Estimated Cost:	Medium, Estimated \$7,000/culvert plus labor and materials	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	1 year
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	FEMA HMA
Responsible Organization:	Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate entire roadway	\$5M+	Unfeasible, not cost-effective
	Replace culverts with bridges	N/A	Unfeasible, construction will disturb roadway for many years
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. German-001	
Project Number:	Birdlebough – Gramch Road Culverts	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	Highway department can install new culverts
Political	1	
Legal	1	
Fiscal	0	Town needs funding support
Environmental	1	No anticipated issues
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, severe storm
Timeline	1	
Agency Champion	1	Highway Superintendent
Other Community Objectives	0	
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	2021-T. German-002		
Project Number:	Smith-Kingsman Road Culvert		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Due to beaver issues and dam failures, the 3 foot culvert pipe on Smith-Kingsman Road has a tendency to overflow and erode the road.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will put in an additional 3 foot culvert pipe to help with water flow and eliminate flooding and erosion concerns. This pipe will have a screen due to the beaver debris.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	N/A	Estimated Benefits (losses avoided):	High, reduce erosion concerns
Useful Life:	40 years	Goals Met:	2, 4, 6
Estimated Cost:	Medium	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	1-2 years
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	FEMA HMA
Responsible Organization:	Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Eliminate beaver population	N/A	Not environmentally sound, will disturb natural ecosystem
	Replace culvert with bridges	N/A	Unfeasible, construction will disturb roadway for many years
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. German-002	
Project Number:	Smith-Kingsman Road Culvert	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	Highway department can install new culvert
Political	1	
Legal	1	
Fiscal	0	Town needs funding support
Environmental	1	No anticipated issues
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, severe storm
Timeline	1	
Agency Champion	1	Highway Superintendent
Other Community Objectives	0	
Total	12	
Priority (High/Med/Low)	High	



9.10 Town of Greene

This section presents the jurisdictional annex for the Town of Greene. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Greene's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.10.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Greene's hazard mitigation plan primary and alternate points of contact.

Table 9.10-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Nick Drew, Highway Superintendent 51 Genesee Street PO Box 129 Greene, NY 13778 607-656-8762 ndrew@nygreene.com	Joseph M. Henninge, Supervisor 51 Genesee Street PO Box 129 Greene, NY 13778 607-656-4191 jhenninge@greene.com
NFIP Floodplain Administrator	
Michael Wheelock, Code Enforcement 51 Genesee Street PO Box 129 Greene, NY 13778 607-656-4191 x 4 Greencode@nygreene.com	

9.10.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 4,024.

The Town of Greene is comprised of 75.6 square miles in the southwest corner of Chenango County, NY, approximately 20 miles north of Binghamton and twenty miles south of Norwich. The Chenango River intersects the town, flowing from north to south. The Town of Greene borders Broome County to the south and west.

Part of the land now occupied by the Town of Greene was purchased from the Oneida and Tuscarora Indians. The first outside settler arrived in the Town of Greene in 1792. The settlement was originally called "Hornby", but in 1806, US Government renamed the settlement to Greene, in honor of General Nathaniel Greene. In 1842 the Village of Greene was incorporated, separating itself, politically from the town. The Town was also incorporated in 1842. Early commercial development was enhanced by the Chenango Canal constructed in 1837 and eventually replaced by the railroad. Over the best 50 years the town has evolved from a primarily agricultural economy to a manufacturing economy.

The Town of Greene is governed by a Town Board, consisting of the Town Supervisor, and four Councilpersons. This governing body will assume responsibility for adoption and implementation of this plan.

9.10.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.10-2 summarizes recent and expected future development trends, including major



residential/commercial development and major infrastructure development. Figure 9.10-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.10-2. Recent and Expected Future Development

Type of Development	2014		2015		2016		2017		2018	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.10.4 Capability Assessment

The Town of Greene performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.10.4). The Town of Greene identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.



Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Greene and where hazard mitigation has been integrated.

Table 9.10-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	Building Permit Procedure. 10/8/1975	Local and State	Town Code Enforcement	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017). Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	5/28/1986	Local	Local Planning Board	No	-	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	Yes	5/28/1986	Local	Town Planning, NYSDEC	Yes	-	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-2021
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	No	-	Local	-	No	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	Adopted 4/16/1986	Local	Town Planning	No	-	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	Code Enforcement	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Adopted 4/1987, Amended 9/2010	Local, State, Federal	Code Enforcement	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Local Law No. 2 of the year 2010, A local law for Flood Damage Prevention as authorized by the New York State Constitution, Article IX, Section 2, and Environmental Conservation Law, Article 36. The Town Board of the Town of Greene finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Greene and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; control filling, grading, dredging and other development which may increase erosion or flood damages; regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; qualify and maintain for participation in the National Flood Insurance Program. The areas of special flood hazard for the Town of Greene, Community Number 361087, are identified and defined on the documents prepared by the Federal Emergency Management Agency and listed in this Chapter. No structure in an area of special flood hazard shall hereafter be constructed, located, extended, converted, or altered and no land shall be excavated or filled without full compliance with the terms of this local law and any other applicable regulations. The Code Enforcement Officer is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	Code Enforcement	Yes	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	-	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	Local	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	Local	-	No	-	-
Comment: Within Flood Prevention Law							
Other Applicable Codes, Ordinances, & Requirements	Yes	Local Law No. 1 of the year 2010, Town of Greene Wind Energy Facility Law	State & Local	Town of Green, Code Enforcement	No	No	-
Comment: The purpose of these regulations is to allow for the construction and operation of wind energy facilities in the Town of Greene, subject to reasonable conditions that will protect the public health, safety and welfare.							
Planning Documents							
Comprehensive Plan	Yes	Adopted 6/12/2007 Updated Ongoing 2019 – Revised November 2016?	Local	Local Planning Board	No	Yes	N/A
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level <ul style="list-style-type: none">Comprehensive Plan, revised November 2016. Goals of the Town of Greene Comprehensive Plan;<ul style="list-style-type: none">1) To provide a sense of how the Town has developed over time, with the intent that information about the past be used to help guide planning decisions in the future.2) To identify features and resources of the present community which are desirable and should be preserved.3) To provide guidance of future growth by encouraging areas of expansion that take advantage of existing infrastructure, as well as being on lands suitable for the type of development proposed.With respect to the challenges of floodplains, the Town has an interest in limiting development even in the 500-year flood zone, in order to avoid incurring costs from flood damage to public access roads and utility lines. Other Goals related to environmental protection are to; Protect sensitive environmental areas such as aquifers, streams, wetlands, floodplains, steep slopes, mature woodlands, special wildlife habitats, prehistoric and geologic features and prime agricultural lands from pollution and degradation; Minimize the negative environmental impacts of new development on existing residences, scenic views, farmlands and recreational open spaces; and Protect air quality.In order to protect the natural environment of the Town from degradation, the Town can implement mitigating measures to:<ul style="list-style-type: none">Use the SEQRA process, the Stormwater Phase II regulations and the Town's authority of site plan review to their full potential to determine whether development plans will have adverse environmental effects and impose mitigating conditions on projects.Require wetland delineation as part of the site plan review process.Expand the list of required elements to be submitted for subdivision or site development approval to include an Existing Resources or Site Analysis map.							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<ul style="list-style-type: none"> o Adopt a land use law to create a conservation district, or special overlay zones to protect sensitive environmental areas. o Form a Town Conservation Advisory Council to inventory and map sensitive environmental areas and then review and make recommendations to the Town and Planning Boards regarding the impact of development proposals on those areas. o Develop a number of measures for the Town Board to protect sensitive environmental areas, such as: sensitive environmental area designation with added site development requirements, conservation subdivision development options, buffer requirements, design guidelines, tree ordinances, transfers of development rights, donation or purchase of conservation easements, tax abatement programs and municipal purchase of especially important properties. o Include a conservation subdivision category in any zoning code, so that developments can receive density credits for setting aside environmentally sensitive areas as public green space. 							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g. Working with Chenango Chamber of Commerce to develop							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually. Follow SOP from fire/hwy/county hwy/state hwy depending on where damage is located							
Floodplain or Watershed Plan	Yes	-	Local	Code Enforcement	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities. Within Flood Law							
Stormwater Plan	Yes	5/28/1986	Local	Town Planning/NYSDEC	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	-	-
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment: NYSDEC in charge							
Transportation Plan	No	-	Local	-	No	-	-
Comment: no mass transit							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other (tourism, business dev, etc.)	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Local OEM	Yes		
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	-	Local	Local OEM	Yes		
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	Yes	-	Local	Local OEM	No		
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Other: Emergency Response Plan	Yes	-	Local	Fire Department	No	-	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

Table 9.10-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, for individual lots
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	Yes more land outside floodplain than inside

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Greene.

Table 9.10-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	Working with County Chamber of Commerce
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	
Mutual aid agreements	Yes	Coventry, Smithville, Oxford T, Senton, Triangle; Village of Greene
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning and Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	Contracted as necessary
Planners or engineers with an understanding of natural hazards	Yes	County Planning and Development
Staff with expertise or training in benefit/cost analysis	Yes	Contracted as necessary
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning and Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water
NFIP Floodplain Administrator (FPA)	Yes	Michael Wheelock, Code Enforcement Officer
Surveyor(s)	Yes	Contracted as necessary
Emergency Manager	Yes	Chenango County Emergency Management



Resources	Available? (Yes or No)	Department/ Agency/Position
Grant writer(s)	Yes	County Planning and Development, Cornell Cooperative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Greene.

Table 9.10-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes – w/referendum
User fees for water, sewer, gas or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Greene.

Table 9.10-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes, from Office of Supervisor
Personnel skilled or trained in website development?	Yes, website managers IT department, Clerk, Supervisor, Board members
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No Town does not have Facebook or other forms of social media; however, the Village of Greene has a Facebook page
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Yes Fire dept goes door to door to warn residents to evacuate; Hyper-Reach is a countywide emergency alert system that residents can sign up online to receive texts and calls regarding emergencies in the county



Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Greene.

Table 9.10-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.10-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating



National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Michael Wheelock, Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Greene.

Table 9.10-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Greene	16	51	\$1,241,537	23	-	8

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The Town of Greene Code Enforcement Officer serves as the NFIP Floodplain Administrator for both the Town and Village of Greene. The Code Enforcement office in the Town of Greene is responsible for building permits, septic permits, site plan review with the Town Planning Board, land use changes, land subdivisions, the Town Water Districts, fire inspections, and floodplain management. The Code Enforcement Office also reviews short form environmental assessments.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Greene has completed Community Assistance Visits (CAV), with the most recent visit completed in 2019.

Regulatory

The Town of Greene Flood Damage Prevention Ordinance (FDPO) was last updated in September 2010. The Town's floodplain management program meets minimum requirements.

Additional Areas of Existing Integration

None identified

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.



Evacuation Routes

No official signage; areas that tend to flood are relatively small. State Routes 41/206 and 12 pass through Town

Sheltering

Fire station primary location because it has a backup generator.

Greene Intermediate School has been used in the past, as well as the Immaculate Conception Church and First United Methodist Church of Greene.

Village Hall has backup generator if extra capacity is needed.

Temporary Housing

Fire Station Parking Lot and School Parking Lots have been used in the past by FEMA.

Permanent Housing

No municipal land available.

9.10.5 Hazard Event History Specific to the Town of Greene

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Greene's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.10-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.10-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 2018	Flooding	Yes	Heavy rainstorms	Infrastructure damages All roads flooded FEMA helped with repairs

Notes:

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

9.10.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Greene's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:



- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.10-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Dollar General	Convenience Store	No	Yes	-
Brisben Fire Company	Fire/EMS	No	Yes	2021-T. Greene-001

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Greene. The Town of Greene has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Greene indicated the following:

- Agreement with calculated rankings – no changes made.



Table 9.10-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	High	Medium	Medium	Medium	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Roads have suffered extensive damage in past storms, stream bank erosion and placement of gravel and other debris in unwanted locations on private & public land. No Loss of life or injury.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Rt 12 next to refuse district #1 We live alongside a drainage ditch which was constructed in the 1960's. Since then several very tall trees have grown. As a hard wind blows, we are concerned they will fall on the power lines and on our roof. They have fallen on the electric lines in the past.

9.10.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.10-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TGR-1 (Former TOG-4)	Mill Brook Channel Repair	Flood, Severe Storm	Town of Green Highway Dept.; support from Chenango County	Mill Brook Channel Repair	Complete by County	Cost	-	Complete - Repairs were done by county
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGR-2 (Former TOG-6)	Purchase a backup generator for the Town Highway Garage.	Severe Storm, Severe Winter Storm	Town of Greene; with support from Village of Greene	Purchase a backup generator for the Town Highway Garage.	Yes Complete	Cost	-	Complete
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGR-3	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain,	Flood, Severe Storm	Town Governing Body; support from NYSOEM and FEMA	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL – 6 currently), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners. Specifically identified are the six NFIP Repetitive Loss properties.	Most in Village	Cost	-	The Town continues to support non-structural flood hazard mitigation initiatives for residents living within the SFHA.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGR-4	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically:							



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)	Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.	
(Former TOG-7, 8)	Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification. Public education and awareness program for floodplain residents. Updates to NFIP floodplain mapping. Promotion of “Firewise” programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	The Town continues to support County, State, and Federally-led hazard mitigation programming and initiatives.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Greene has not identified any mitigation projects or initiatives apart from those included in the in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Greene worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.10-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Greene would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.10-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.10-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Greene-001	Brisben Fire Company	1, 2, 3, 5, 7	All Hazards	Problem: The Brisben Fire Company is located within the 0.2% SFHA. Solution: The Town of Green will work with the Fire Company to assess and determine accurate flood risk based on past occurrences and determine if a relocation outside of the floodplain is necessary. Otherwise, the Fire Company will install floodproofing measures to ensure continual operation of this critical facility.	Yes	No	Within 5 years	Town of Greene, Brisben Fire Company	Low to conduct outreach and flood vulnerability study	High	FEMA Firefighters Assistance Grants	High	LPR	ES
2021-T. Greene-002	Tree Maintenance	1, 3, 6, 7	Severe Storm, Severe Winter Storm, Flood	Problem: Many residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events. Solution: The Village of Afton will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are nearby power lines as to reduce frequency of power outages.	No	No	Less than 6 months	Town of Greene	Low	High	Municipal Budget, FEMA HMA	High	LPR	PP
2021-T. Greene-003	Repetitive Loss Outreach	1, 2, 3, 5	Flood	Problem: There are 23 Repetitive Loss properties within the Town, including 8 within the 1% SFHA. Solution: The Town NFIP FPA will conduct outreach to the RL property owners about past damages and ongoing flood risk. The FPA will also ensure that residents living in the 1% SFHA are aware of the increased flood risk and provide all homeowners information and support for structural flood mitigation, including elevation, diversion of stormwater runoff, and relocation if necessary. The town will	No	No	Short	Town of Greene Code Enforcement/ NFIP FPA	Low to conduct outreach	High	Municipal Budget	High	EAP	PI, PP



Table 9.10-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				support any grant applications by homeowners to mitigate their properties.										

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.10-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Greene-001	Brisben Fire Company	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High
2021-T. Greene-002	Tree Maintenance	1	1	1	1	0	1	1	0	0	1	1	1	0	0	11	High
2021-T. Greene-003	Repetitive Loss Outreach	1	1	1	1	1	1	1	1	1	1	0	1	1	0	12	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.10.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.10-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak	001									001
Drought	001									001
Extreme Temperatures	00									00
Flood	001, 002			003		002, 003	003			001
Harmful Algal Bloom	001									001
Invasive Species	001									001
Natural Gas	001									001
Severe Storm	001, 002					002				001
Severe Winter Storm	001, 002					002				001
Wildfire	001									001

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.10.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Greene followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: Code Enforcement, the Highway Department, and the Supervisor's Office. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

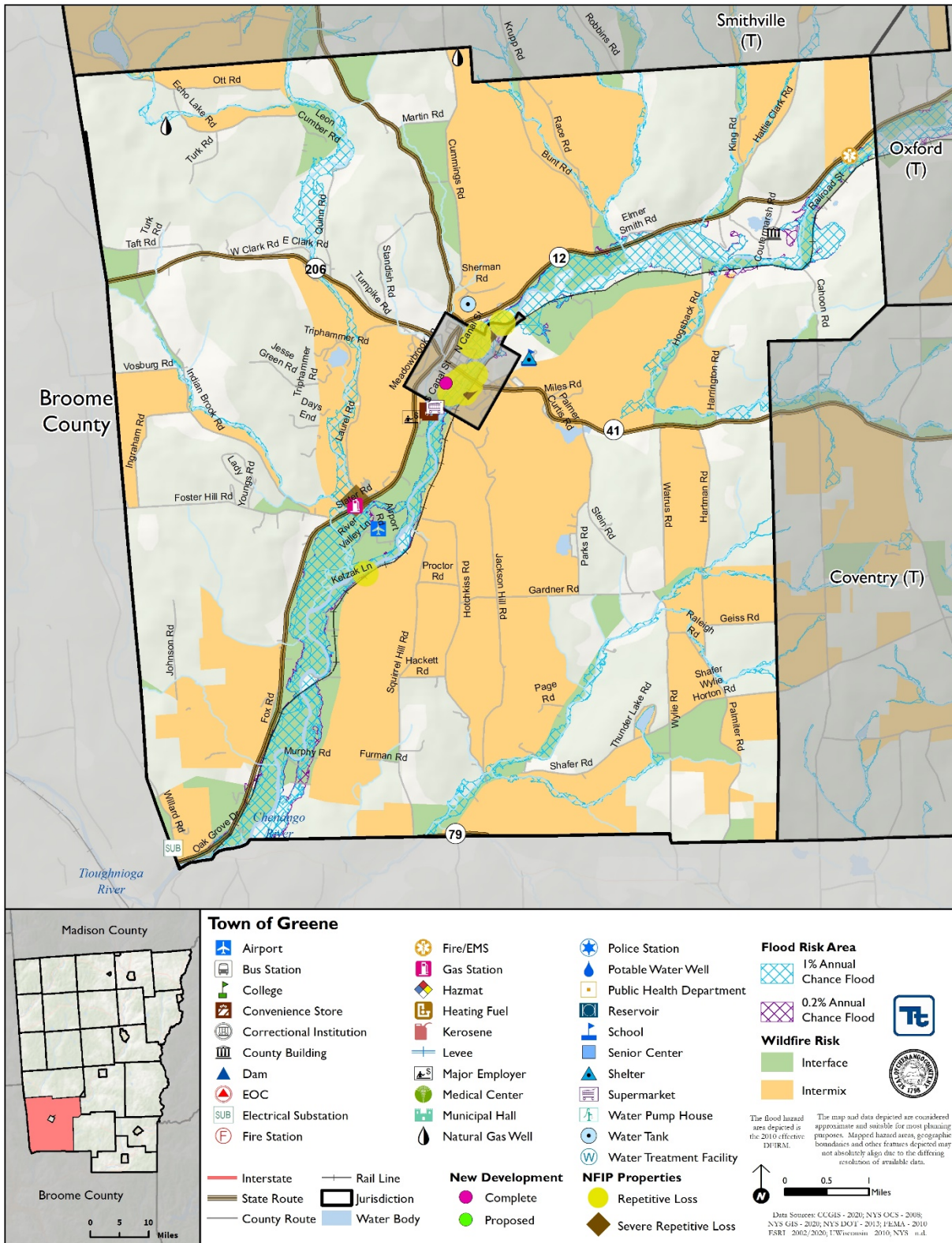
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.10.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Greene that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Greene has significant exposure. The map is illustrated below.



Figure 9.10-1. Town of Greene Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Brisben Fire Company		
Project Number:	2021-T. Greene-001		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	The Brisben Fire Company is located within the 0.2% SFHA.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Green will work with the Fire Company to assess and determine accurate flood risk based on past occurrences and determine if a relocation outside of the floodplain is necessary. Otherwise, the Fire Company will install floodproofing measures to ensure continual operation of this critical facility.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	High, ensure operation of critical facility
Useful Life:	99 years	Goals Met:	1, 2, 3, 5, 7
Estimated Cost:	Low to conduct outreach and flood vulnerability study	Mitigation Action Type:	LRP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	Within 5 years	Potential Funding Sources:	FEMA Assistance to Firefighters Grants, FMA
Responsible Organization:	Town of Greene, Brisben Fire Company	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Emergency Response
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Decommission the Fire Station	N/A	Unfeasible, would leave large area without access to emergency services
	Relocate without conducting flood study	\$2 Million	May be unnecessary and not cost-effective if flood is not major risk at this time
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Brisben Fire Company	
Project Number:	2021-T. Greene-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures EMS/Fire within the Town
Property Protection	1	Ensures EMS/Fire within the Town
Cost-Effectiveness	1	
Technical	0	Town will need an engineer to complete vulnerability analysis
Political	1	
Legal	0	
Fiscal	0	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	All Hazards
Timeline	1	
Agency Champion	1	Fire Chief
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Tree Maintenance		
Project Number:	2021-T. Greene-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	Many residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Greene will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are nearby power lines as to reduce frequency of power outages.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year MRP wind event	Estimated Benefits (losses avoided):	High, reduces power outages
Useful Life:	99 years	Goals Met:	1, 3, 6, 7
Estimated Cost:	Low	Mitigation Action Type:	LPR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Ongoing
Estimated Time Required for Project Implementation:	Less than 6 months to being identifying	Potential Funding Sources:	Municipal Budget, FEMA HMA
Responsible Organization:	Town of Greene	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Ground Power Lines	\$3 M+	Expensive, not cost-effective, will disrupt state and natural lands
	Remove all trees surround power lines	N/A	Not environmentally or ecologically sound, will not guarantee reduction in power outages
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Tree Maintenance	
Project Number:	2021-T. Greene-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces probability of power outages caused by debris during hazards
Property Protection	1	Prevents property from falling trees
Cost-Effectiveness	1	
Technical	1	Town can support implementation
Political	1	
Legal	1	
Fiscal	1	
Environmental	0	Possible concerns with over-trimming, tree removal
Social	0	
Administrative	1	
Multi-Hazard	1	All Hazards, Severe Storms
Timeline	1	Ongoing
Agency Champion	0	
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



9.11 Village of Greene

This section presents the jurisdictional annex for the Village of Greene. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Village participated in the planning process; an assessment of the Village of Greene's risk and vulnerability; the different capabilities utilized in the Village; and an action plan that will be implemented to achieve a more resilient community.

9.11.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Village of Greene's hazard mitigation plan primary and alternate points of contact.

Table 9.11-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Phillip E. Brown, Mayor 9 Locust St. Greene, NY 13778 607-656-9560 mayor@greeneny.us	Karen Tuttle, Trustee 4 Jeffrey Hgts. Greene, NY 13778 607-656-9056 Warkar4125@aol.com
NFIP Floodplain Administrator	
Mike Wheelock, Village Code Enforcement 49 Genesee St. PO Box 207 Greene, NY 13778 607-656-4191 greenecode@nygreene.com	

9.11.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Village was 1,580.

The Village is in the southwest end of Chenango County. It surrounds the intersections of NYS Routes 12 and 206 and is 20 miles north of Binghamton and 20 miles south of Norwich. The Chenango River runs through the eastern side of the village. The Village of Greene is a 1.1 mile area with approximately 786 housing units within its boundaries.

The Village of Greene was first settled in 1792 by Stephen Ketchum and was originally called Hornby, then was re-named after the Revolutionary War hero General Nathaniel Greene. The Village was incorporated in 1842. The Village offers its residents municipally owned electric, water, wastewater treatment, police and fire protection. The electric company was formed in 1891 becoming a village owned department in 1903. Today it supplies 1,250 homes and businesses with low cost electricity. The water system was formed in 1903 with the original sources of water being natural springs located 7 miles north of the Village. Today the water source is 3 wells located east of the Chenango River. The waste water treatment plant was built in 1968 and operational in 1970, servicing the entire village and is located on the south east side of the Village. The Village offices are located in the middle of Genesee St/Route 206 in a building that was built in 1886 which also originally housed the fire department. Today we have the distinction of allowing parking in the middle of the center of Genesee Street.



The Village government consists of a Mayor and four trustees, each serving a two year term. Our unique character is maintained and encouraged by our Planning and Zoning Boards each consisting of volunteers. This governing body will assume responsibility for adoption and implementation of this plan.

9.11.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.11-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.11-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.11-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	2	-	0	-	0	-	0	-	0	-
Total	2	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
Raymond Corporation	Addition		2		22 Canal St.		None		Completed + 2 additional ~47,000 SF	
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.11.4 Capability Assessment

The Village of Greene performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.



- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.11.4). The Village of Greene identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Greene and where hazard mitigation has been integrated.

Table 9.11-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Codes, Ordinances, & Requirements							
Building Code	Yes	Contract with Town of Greene	Local and State	Town of Greene Code Enforcement	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	Yes	Village Code Book 1994	Local	Local Zoning Board of Adjustment	No	No	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan" ¹¹ or "in accordance with a comprehensive plan." ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Village Code Book 1994	Local	Local Planning Board	No	No	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	Yes	Subdivision Regulations	Local	NYSDEC permits required for any major construction projects	Yes	No	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							



SECTION 9.11: Village of Greene

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-2021
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	Yes	-	Local	Local Planning Board	No	No	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	Village Code Book 1994, SEQRE	Local	Local Planning Board	No	No	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	?	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Village Code Book 1994, Amended 9/13/2010	Local, State, Federal	Administered by County Code Official under and MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Local Law No. 4 of the year 2010. A local law, Flood Damage Prevention, as authorized by the New York State Constitution Article IX, Section 2, and Environmental Conservation Law, Article 36. The Board of Trustees of the Village of Greene finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Village of Greene and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program. The areas of special flood hazard for the Town of Greene, Community Number 361087, are identified and defined on the documents prepared by the Federal Emergency Management Agency and listed in this Chapter. No structure in an area of special flood hazard shall hereafter be constructed, located, extended, converted, or altered and no land shall be excavated or filled without full compliance with the terms of this local law and any other applicable regulations. 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
<ul style="list-style-type: none"> The Code Enforcement Officer is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	?	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	NYS Executive Law, Article 75	Local	-	Yes	No	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	Local	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	Local	-	No	-	-
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	-	Local	-	No	-	-
Comment: Sanitations. Village Code Book 1994 Refuse Ordinance. Village Code Book 1994 Telecommunications Towers. Village Code Book 1994							
Planning Documents							
Comprehensive Plan	Yes	General City Law section 28a(3)(a); Town Law section 272-a(2)(a); Village Law	Local	Planning Board Village Board	No	No	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
		section 7-722(2)(a)					
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	Yes	General Municipal Law Section 99-g.	Local	Water Department	No	No	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	-	Local	SRBC	No	Yes	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local	NYSDEC	No	No	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	-	-
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-



SECTION 9.11: Village of Greene

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	NYCRR Part 390 Agricultural and Farmland Protection -	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other (tourism, business dev, etc.)							
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Local OEM	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-2021
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	-	Local	Village Board	No	No	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Comment: Emergency Response Plan. Reviewed annually by Village Board. Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

Table 9.11-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Code Enforcement
Permits are tracked by hazard area. For example, floodplain development permits.	Yes, Code Enforcement
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	Yes, One Lot on Washington St.

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Greene.

Table 9.11-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	Town of Greene
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Chenango County Planning and Development and Keystone Engineering
Engineers or professionals trained in building or infrastructure construction practices	Yes	Keystone Engineering/Town of Greene Code Enforcement
Planners or engineers with an understanding of natural hazards	Yes	Keystone Engineering
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Chenango County Planning and Development Board
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	Mike Wheelock
Surveyor(s)	Yes	Contract or County Highway
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Village of Greene Fire Department
Grant writer(s)	Yes	Police Department Secretary
Resilience Officer	No	-
Other	No	-



Fiscal Capability

The table below summarizes financial resources available to the Village of Greene.

Table 9.11-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements 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	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	Yes

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Greene.

Table 9.11-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	Yes, links to FEMA, NYS DEC, and aerial and topographic maps
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	The Greene Emergency Squad responds to a wide variety of emergencies including but not limited to medical emergencies, motor vehicle collisions, fire emergencies, and natural disasters.
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	SACDA
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Not indicated
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Village of Greene.



Table 9.11-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.11-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Mike Wheelock, Village Code Enforcement



National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Greene.

Table 9.11-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Village of Greene	64	80	\$2,534,959	23	-	30

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The Village of Greene Code Enforcement Officer serves as the NFIP Floodplain Administrator for both the Town and Village of Greene. The Code Enforcement Office in the Village of Greene is responsible for building permits, zoning review and enforcement, village ordinances, and floodplain management. The Code Enforcement Office also reviews short form environmental assessments.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Village of Greene has completed Community Assistance Visits (CAV), with the most recent visit completed in 2016.

Regulatory

The Village of Greene Flood Damage Prevention Ordinance (FDPO) was last updated on September 13, 2010. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Infrastructure Protection:** Install drainage pipe from Mill St to Chenango River to increase drainage from Franklin & Willard Street
- **Infrastructure Protection:** Additional storm drains on Wheeler Street to increase drainage from Raymond Corp.
- **Local Plans and Regulations:** Support County Wide initiatives identified in Section 9.1, Volume II of this plan.
- **Local Plans and Regulations:** Consider participation in incentive-based programs such as CRS.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.



Evacuation Routes

Evacuation routes are specific to hazard event and routes will vary according to the location and type of event. Residents should seek up-to-date information from the Chenango County Office of Emergency Management.

Sheltering

The Village of Greene has not designated emergency shelters but will evaluate the use of the municipal hall to serve as a warming/cooling center in the event of power outages. In the event that sheltering is needed shelters will be determined at the time of an emergency, in accordance with the County CEMP.

Temporary Housing

The Village of Greene has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Village will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Village of Greene did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Village can utilize this analysis to identify potential locations.

9.11.5 Hazard Event History Specific to the Village of Greene

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Village of Greene's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.11-11 provides details regarding municipal-specific loss and damages the Village experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.11-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
March 14-15, 2017	Severe Winter Storm and Snowstorm (DR-4322)	Yes	A record-breaking winter storm traveling northeast along the coast brought major snow to the region, with one and two-day records broken in many locations. Chenango County received between two and three feet of snow.	While this event impacted Chenango County, the village sustained little to no damages.
August 13-15, 2018	Severe Storms and Flooding (DR-4397)	Yes	Flash flooding resulted from a slow moving storm, washing out several roads in Plymouth and causing a small creek to overflow its banks.	While this event impacted Chenango County, the village sustained little to no damages.
October 31, 2019	Severe Storms, Straight-Line Winds and Flooding (DR-4472)	Yes	A low pressure system caused locally-heavy rainfall and led to a landslide across Route 23 in Pharsalia, water rescues in Pharsalia, and severe damage on the Route 80 bridge in Smyrna.	While this event impacted Chenango County, the village sustained little to no damages.



Notes:

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

9.11.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Village of Greene's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.11-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Village of Greene Wastewater Treatment Plans	Wastewater Facility	Yes	Yes	2021-V. Greene-003
Potable Water Well	Potable Water Facility	Yes	Yes	2021-V. Greene-003
Potable Water Well	Potable Water Facility	Yes	Yes	2021-V. Greene-003
Mirabito Fuel Group	Natural Gas Facility	No	Yes	-

Source: HAZUS-MH 4.2



Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Village of Greene. The Village of Greene has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Village of Greene indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.11-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	High	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

**The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality*

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Stream bank erosion, the flooding of the electrical Department office, and protecting the generator for the lift station- which has been submerged in the past.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Lack of immediate notification in case of emergency

9.11.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.11-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
VGR-1	Address stream bank erosion issues.	Flood; Severe Storm	Village DPW, CC DPW and SWCD, NYS DEC	Address stream bank erosion issues.	Ongoing	Cost	-	See Mitigation Action # 2021-V. Greene-001.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VGR-2	Install generator	Flood; Severe Storm	Village DPW & Village Electric	Install generator for previously submerged lift station.	Ongoing	Cost	-	See Mitigation Action # 2021-V. Greene-003.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VGR-3	Retrofit electrical department office	Flood; Severe Storm	Village Electric	Retrofit electrical department office which has previously flooded.	Complete 2012	Cost	-	Floor was raised above 100-year flood level per 2011 flood map.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VGR-4 (Former VGR-1)	Replace storm drains	Flood, Severe Storm	Village of Greene DPW; working with NYSDEC, CC SWCD	Replace existing storm drains from N Chenango St and Elm St to Chenango River to increase their capacity, accommodate larger storm events and mitigate flooding.	Ongoing	Cost	-	See Mitigation Action # 2021-V. Greene-002
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VGR-5 (Former VGR-2)	Enhance stormwater management	Flood, Severe Storm	Village of Greene DPW; working with NYSDEC, CC SWCD	Enhance storm water management by replacing smaller, leaking stormwater lines with larger capacity piping to tighten the system and increase flow.	Ongoing	Cost	-	See Mitigation Action # 2021-V. Greene-003.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VGR-6	Install drainage pipe	Flood, Severe Storm	Village of Greene DPW;	Install drainage pipe from Mill St to Chenango River to	Ongoing	Cost	-	See Mitigation Action # 2021-V. Greene-002
						Level of Protection	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
(Former VGR-3)			working with NYSDEC, CC SWCD	increase drainage from Franklin & Willard Street.		Damages Avoided; Evidence of Success	-	
VGR-7 (Former VGR-4)	Storm drains	Flood, Severe Storm	Village of Greene DPW; working with NYSDEC, CC SWCD and Raymond Corporation	Additional storm drains on Wheeler Street to increase drainage from Raymond Corp.	Ongoing	Cost	-	See Mitigation Action # 2021-V. Greene-002
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VGR-8 (Former VGR-6, -7)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	This is part of the daily operations of the Village.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VGR-9	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL – 14 currently) and Severe Repetitive Loss (SRL – none currently), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners.							
	The Village is currently working on the elevation of some 13 properties through mitigation grant program(s).							
	See above	Flooding, Severe Storms	Village Governing Body; support from NYSOEM and FEMA	See above	Ongoing Capability	Cost	-	This is part of the daily operations of the Village.
						Level of Protection	-	
						Damages Avoided;	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Evidence of Success		



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Greene has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- None Identified

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Greene worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.11-15 summarizes the comprehensive-range of specific mitigation initiatives the Village of Greene would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.11-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.11-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	GRS Category
2021-V. Greene-001	Birdsall Creek Flooding	2, 4, 6	Flood, Severe Storm	Problem: Birdsall Creek runs directly into Chenango River causing bank erosion and dirt buildup. Solution: The Village will implement a plan to dredge the Creek and existing dirt bars to repair the riverbank. This will eliminate erosion concerns and stabilize the creek where it meets the River and reduce flooding events.	No	No	Short, 1 year	Highway Department, with support from NYSDEC	Medium	High, reduces flood	FEMA HMA, NYSDEC	High	NSP	NR, SP
2021-V. Greene-002	Street Flooding	2, 4, 6	Flood, Severe Storm	Problem: Existing culvert pipes within the Village are undersized and blocked by debris. Solution: The Village Highway Department will replace current storm drains with ones with adequate capacity to handle water flow and increase the size of existing culvert pipes throughout the Village.	No	No	Short, within scope of HMP	Highway Department	Medium – High	High, reduces flooding events throughout Village and ensures safe passage of roadways	FEMA HMA, Municipal Budget	High	SIP	PP
2021-V. Greene-003	Water Main Upgrades	1, 2, 3, 6	All Hazards	Problem: The current water main lines and generators to the wells are 100+ years old and break often, interrupting service and posing a contaminated water risk to Village residents. Solution: The Village is currently working with an engineering firm to develop a project implementation plan to replace the pipes and install new generators that are removed from flood and other hazard risk. The Village will apply for grant funding when available.	Yes 💧	No	Short, within scope of HMP	Public Works & Water Department	Medium – High	High, ensures safe drinking water	FEMA BRIC	High	SIP	PP
2021-V. Greene-004	RL Property Outreach	1, 2, 3, 5	Flood	Problem: There are 23 Repetitive Loss Properties within the Village along the Chenango River. Solution: The Village will conduct outreach to these property owners about mitigation options and flood risk to their properties, and support any decision to pursue structural mitigation, including relocation.	No	No	Short	Village Board	Low	High, ensures property owners have information about flood mitigation and risk	Municipal Budget	Medium	EAP	PI



Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.11-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-V. Greene-001	Birdsall Creek Flooding	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2021-V. Greene-002	Street Flooding	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2021-V. Greene-003	Water Main Upgrades	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2021-V. Greene-004	RL Property Outreach	1	1	1	0	0	0	1	1	0	1	0	1	0	0	7	Medium

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.11.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.11-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood		002, 003	001	004		002, 003	004	001	001	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		002, 003	001			002, 003		001	001	
Severe Winter Storm										
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.11.9 Staff and Local Stakeholder Involvement in Annex Development

The Village of Greene followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Village departments, including: The Mayor's Office, The Village Board of Trustees, and Village Code Enforcement. The Mayor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

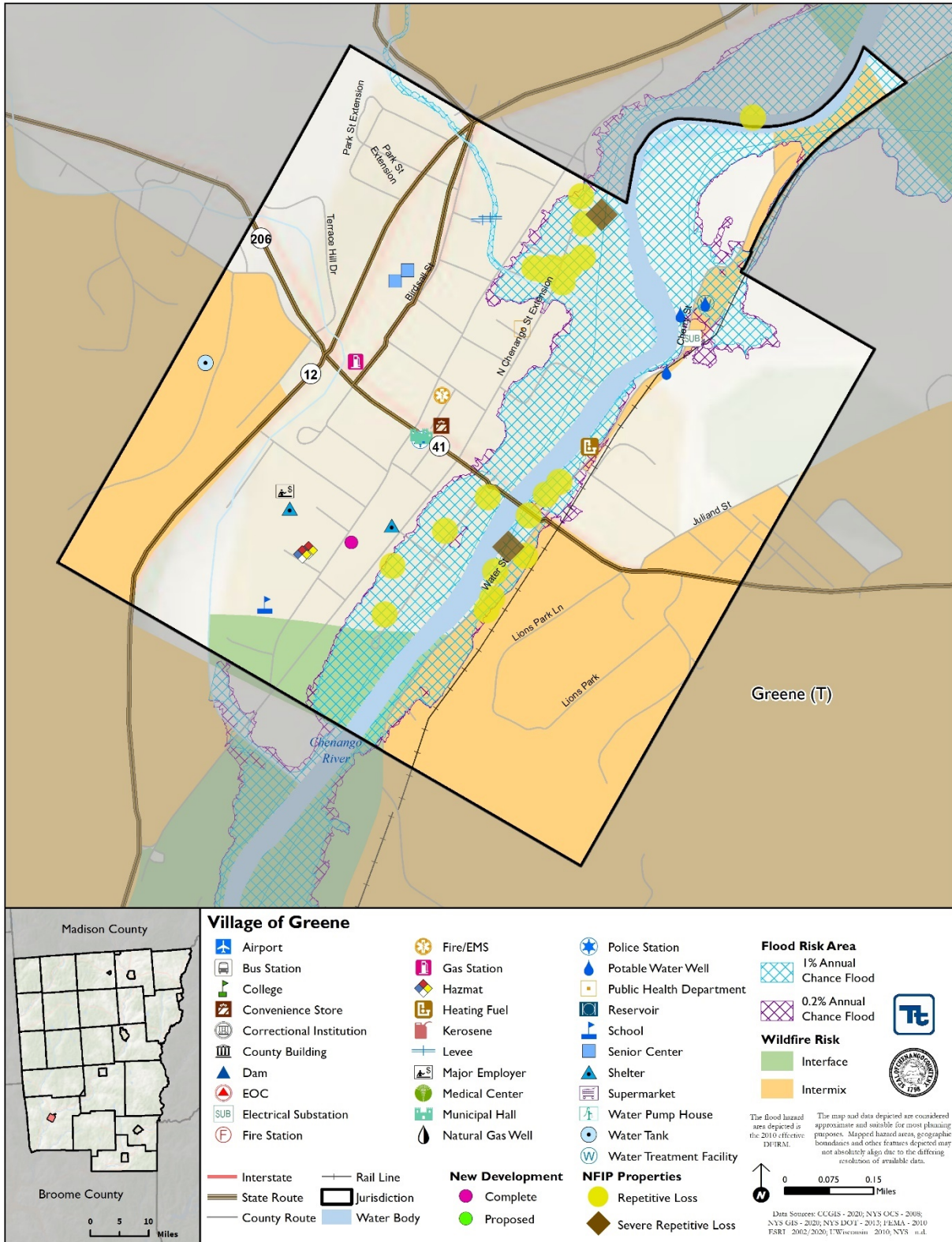
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.11.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Village of Greene that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Greene has significant exposure. The map is illustrated below.



Figure 9.11-1. Village of Greene Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Birdsall Creek Flooding		
Project Number:	2021-V. Greene-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Birdsall Creek runs directly into Chenango River causing bank erosion and dirt buildup.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village will implement a plan to dredge the Creek and existing dirt bars to repair the riverbank. This will eliminate erosion concerns and stabilize the creek where it meets the River and reduce flooding events.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	N/A	Estimated Benefits (losses avoided):	High, reduces floods
Useful Life:	40 years	Goals Met:	2, 4, 6
Estimated Cost:	Medium	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	1 year
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	FEMA HMA, NYSDEC
Responsible Organization:	Highway Department, with support from NYSDEC	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Expand the creek bank	N/A	Unfeasible, will encroach on properties and problem will still continue
	Add structural walls to creek bank	N/A	Not environmentally sound, will not eliminate erosion concerns during storms
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Birdsall Creek Flooding	
Project Number:	2021-V. Greene-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Properties along creek will be protected
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	0	No concerns anticipated
Social	1	
Administrative	1	
Multi-Hazard	1	Flooding, severe storms, erosion
Timeline	1	To address within 1 year
Agency Champion	1	
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Street Flooding		
Project Number:	2021-V. Greene-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Existing culvert pipes within the Village are undersized and blocked by debris.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village Highway Department will replace current storm drains with ones with adequate capacity to handle water flow and increase the size of existing culvert pipes throughout the Village.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	N/A	Estimated Benefits (losses avoided):	High, reduces flooding events throughout Village and ensures safe passage of roadways
Useful Life:	40 years	Goals Met:	2, 4, 6
Estimated Cost:	Medium – high	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	1-2 years
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	FEMA HMA, Municipal Budget
Responsible Organization:	Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate all roadways	N/A	Not technically sound, will have unforeseen consequences
	Add additional culverts	\$500K	Current problem may not be resolved, still issues with existing capacity
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Street Flooding	
Project Number:	2021-V. Greene-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Water Main Upgrades		
Project Number:	2021-V. Greene-003		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	The current water main lines and generators to the wells are 100+ years old and break often, interrupting service and posing a contaminated water risk to Village residents.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village is currently working with an engineering firm to develop a project implementation plan to replace the pipes and install new generators that are removed from flood and other hazard risk. The Village will apply for grant funding when available.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	High, ensures safe drinking water
Useful Life:	99 years	Goals Met:	1, 2, 3, 6
Estimated Cost:	High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	1-2 years	Potential Funding Sources:	FEMA BRIC
Responsible Organization:	Public Works & Water Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate water system above ground	N/A	Will be at risk to additional hazards including fire and storms
	Abandon Village water system and use another community's	N/A	No nearby water systems to supply water to Village and Town of Greene
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Water Main Upgrades	
Project Number:	2021-V. Greene-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	12	
Priority (High/Med/Low)	High	



9.12 Town of Guilford

This section presents the jurisdictional annex for the Town of Guilford. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Guilford's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community. cx

9.12.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Guilford's hazard mitigation plan primary and alternate points of contact.

Table 9.12-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
George Seneck, Town Supervisor 223 Marble Rd. Guilford, NY 13780 607-895-9966 guilfordsupervisor@frontier.com	Robert Fleming, Highway Superintendent 223 Marble Rd. Guilford, NY 13780 607-895-6816 guilfordhighway@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Code Enforcement Officer/County Codes 5 Court St. Norwich, NY 13815 607-337-1796 stevenf@co.chenango.ny.us	

9.12.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 2,922.

The Town of Guilford is located in the southeastern quadrant of Chenango County.

In 1785 the first settlers purchased land from the Oneida Indians settling the area later to be known as East Guilford, building the first saw and grist mills for the settlers who would shortly follow. Guilford was formed from the Town of Oxford and portions of Tioga County in 1813. It was originally called "Eastern" and "Fayette" before establishing itself as Guilford in 1817. As more settlers arrived self-sustaining hamlets in the town were established. A tavern was opened in the hamlet known as Rockwells Mills; Inns in the hamlets of Guilford and Lathams Corners; and by the 19th Century Guilford had its' first farms in the Ives Settlement, Yaleville, as well as increased settlements in the rocky area along the Unadilla River known as Rockdale.

The town had numerous stores, an opera house, schools, and organized its first modern fire department in the hamlet of Guilford in 1928 and in 1934 the hamlet of Mt. Upton followed with the Borden Hose Co. The O&W railroad became a major factor in the expansion of the town. In 1957 the railroad went bankrupt which slowly resulted in the decline of businesses such as the creameries and passenger service to the Guilford Lake resort area.

The Town of Guilford is governed by an elected five member Town Board comprised of a Town Supervisor and four Council members. This governing body will assume responsibility for adoption and implementation of this



plan. The Town has an elected Highway Superintendent; two (2) Town Justices and a Town Clerk, with several appointed positions.

9.12.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.12-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.12-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.12-2. Recent and Expected Future Development

Type of Development	2015		2016		2017		2018		2019	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.12.4 Capability Assessment

The Town of Guilford performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.



For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.12.4). The Town of Guilford identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Guilford and where hazard mitigation has been integrated.

Table 9.12-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Handled by County	Yes	NA	NA
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 2015	Local	Local Planning Board	No	Yes	NA
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730). <ul style="list-style-type: none"> Subdivision Regulations. This Local Law is enacted for the purpose of providing for the orderly future growth and development of land within the Town of Guilford and further to provide order, safety, health and well-being of persons and property within the town. As a requirement for applying for subdivision approval, the Guilford Planning Board shall study the suitability of the Preliminary Plat. Particular attention shall be given to the arrangement, location, and design of streets and their relation to the topography, water supply, lot size and arrangement, and potential flood hazard; and Either a determination of no significant environmental impact (Negative Declaration) or a draft Environmental Impact Statement (EIS) will be required by the designated lead agency before the subdivision may be approved. The Subdivision Sketch Plat and the Preliminary Plat shall include all property lines, easements, existing structures, wooded areas streams, watercourses, flood hazard areas, wetlands, quarries or excavations, bedrock outcrops and other significant physical features, within the area to be subdivided for the Board's consideration.							
Stormwater Management Regulations	No	-	Local	-	Yes	-	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Elimination System (SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	NA	NA
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	No	-	Local	-	No	-	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	No	-	Local	-	No	-	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617 – Environmental Review of Actions, 1979	State	?Town Board	Yes	Yes	NA
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019 <ul style="list-style-type: none"> Local Law No. 1, 1979. A local law providing for the environmental review of actions in the Town of Guilford. It is the purpose of this law to implement for the Town of Guilford SEQR and Part 617. No action, other than an exempt, excluded or Type II action, shall be carried out, approved or funded by any agency, board, body, or officer of the town, unless it has complied with SEQR, Part 617 to the extent applicable and this local law. The lead agency shall make a preliminary determination of environmental significance of the Action on the basis of the Environmental Assessment Form (EAF). An EAF shall be prepared by or on behalf of any agency, board, body or officer of the town in connection with any Type I action such agency, board, body or officer contemplates or proposes to carry out directly. Critical areas of environmental concern may be designated by resolution of the town board in accordance with Part 617.4(j). 							
Flood Damage Prevention Law	Yes	Federal :Participation in the NFIP State: Community Risk and Resiliency Act (CRRA) – Flood Damage Prevention Law, 2010	Local, State, Federal	County, Division of Code Enforcement	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	NA
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Local Law # 1 of 2010. A local law for Flood Damage Prevention as authorized by the New York State Constitution, Article IX, Section 2, and Environmental Conservation Law, Article 36. The Town Board of the Town of Guilford finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Guilford and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<p>(1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;</p> <p>(2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;</p> <p>(3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;</p> <p>(4) control filling, grading, dredging and other development which may increase erosion or flood damages;</p> <p>(5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and;</p> <p>(6) qualify and maintain for participation in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> The areas of special flood hazard for the Town of Guilford, Community Number 361088, are identified and defined on the documents prepared by the Federal Emergency Management Agency as the Flood Insurance Rate Map Panel Numbers that affect the community. The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4) Regulation	No	EPA Phase II Stormwater Rule	Federal	-	Yes	-	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Guilford Fire District/Chenango County EMS	Yes	NA	NA
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	Yes	NYS Executive Law, Article 75	Local	-	Yes	Yes	Yes, but Out of Date
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	-	-	-	-	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: Junkyard Regulations – Adopted 1976 Sanitary Code – Updated 1995 Refuse – Adopted 1970 Solid Waste/Hazardous Waste/Radioactive Waste Disposal Law – Adopted 1989 Renewable Energy Systems Local Law - Town of Guilford Local Law No. 3 of The Year 2019 Renewable Energy Systems Local Law. Right to Farm Law - Town of Guilford, New York, A Local Law No. 5 of The Year 2019 Entitled "Right To Farm Local Law"							
Planning Documents							
Comprehensive Plan	Yes	Adopted 2014 & Updated 2019	Local	Town Planning Board	No	Yes	NA
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level <ul style="list-style-type: none"> Town of Guilford Comprehensive Plan. It was developed over multiple years' worth of effort (in 2011-2014) by the Guilford Town Planning Board in consultation with the residents of Guilford and with the assistance of the Guilford Town Board, the Chenango County Planning Department and numerous state and county agencies. Town of Guilford Comprehensive Plan. It was developed over multiple years' worth of effort (in 2011-2014) by the Guilford Town Planning Board in consultation with the residents of Guilford and with the assistance of the Guilford Town Board, the Chenango County Planning Department and numerous state and county agencies. During two periods in a five-year span – June 2006 and September 2011 – highways, dwellings and farms in the Town of Guilford suffered significant damage. Much of this damage resulted from flash flooding. River flooding on the Unadilla River and overflows of streams in the Hamlets of Guilford and Mount Upton also damaged roads and properties. In addition, during the summer of 2011, several episodes of heavy downpours created numerous washouts, blocked culverts and drainage ditches, and undermined some roads. This Plan and the All Hazards Mitigation Plan recommends raising the level of Marble Road to prevent the Town Hall building from being "cut off" by flood waters as occurred in 2006 and 2011. Town of Guilford Comprehensive Plan Update, Adopted by Town Board: June 12, 2019. The purpose of this update is to ensure the Comprehensive Plan establishes a more detailed renewable energy policy and provide the Board with a solid foundation for decision-making related to future renewable energy facilities in Guilford. The Town Board desires to maintain the direction of the 2014 Comprehensive Plan and finds that its goals remain relevant in 2019. The Comprehensive Plan updates include recommendations related to Renewable Energy, including; adopting a renewable energy law for the Town. This local law should address solar, wind, geothermal, and farm to waste energy systems. 							
Capital Improvement Plan	No	General Municipal Law Section 99-g.	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	No	-	Local	-	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	No	-	Local	-	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	NYS Constitution - Article 9; Statute of	Local	-	Yes	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
		Local Governments. Section 10 (7)					
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	-	-	Yes	NA	NA
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	Yes	NYCRR Part 390 Agricultural and Farmland Protection – (2019)	Local	Town Board	Yes	Yes	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Local OEM	Yes	Yes, but Out of Date	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	No	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations."							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	-	Local	Guilford Fire District/Chenango County EMS	Yes	No	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							
Other: Special Purpose Ordinances (such as critical or sensitive areas)							
Comment: Emergency Response Plan. State Mandated							

Table 9.12-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	No Requirements
Permits are tracked by hazard area. For example, floodplain development permits.	Yes, Chenango County Codes Department
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Guilford.



Table 9.12-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Town of Guilford
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Town of Guilford
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	Fire District & Fire Protection District
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract
Professionals trained in conducting damage assessments	Yes	County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	Chenango County Code Enforcement
Surveyor(s)	Yes	County Highway Department
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Guilford District Fire Department
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Guilford.

Table 9.12-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements 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-Subdivision Fee
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No



Financial Resources	Accessible or Eligible to Use (Yes/No)
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	Yes

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Guilford.

Table 9.12-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Yes, Website and Facebook Page
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Guilford.

Table 9.12-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable
NP Not participating
- Unavailable



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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.12-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities)
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

**High Capacity exists and is in use*

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Guilford.

Table 9.12-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Guilford	9	18	\$171,966	2	-	3

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.



Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Guilford has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Guilford has completed Community Assistance Visits (CAV), with the most recent visit completed in 2020.

Regulatory

The Town of Guilford's Flood Damage Prevention Ordinance (FDPO) was last updated on October 21, 2010.

Additional Areas of Existing Integration

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

- **Land Use and Planning:** The Town has been working on updating their Comprehensive plan, which includes consideration of natural hazard areas.
- **Infrastructure Protection/Floodplain Management:** Control flooding along the banks of Moses Brook from Guilford Lake to the Furnace Hill Road, in addition to numerous small streams in the town. Reinforcement of the banks, diversion of the water flow to slow and reduce erosion, as directed by NYSDEC.
- **Infrastructure Protection/Floodplain Management:** Enhance stormwater management by resizing culverts and preparing a culvert replacement plan for areas prone to flooding or washouts.
- **Infrastructure Protection/Floodplain Management:** Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions.
- **Infrastructure Protection/Floodplain Management/Natural System Protection:** Control erosion from Guilford Lake Dam to Furnace Hill Road to maintain integrity of public water supply
- **Infrastructure Protection/Floodplain Management:** Retrofit flood-prone roadways. Specifically increase culvert sizes and raise the level of Marble Road.
- **Local Plans and Regulations:** Consider participation in incentive-based programs such as CRS.



Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

Evacuation Routes are identified in the Emergency Action Plan and are specific to hazard event and routes will vary according to the location and type of event.

Sheltering

The Bainbridge-Guilford High School is located outside of the flood plain and has a generator that provides power to a portion of the building in the event of an outage. The High School also has cots that can be used for temporary housing.

Temporary Housing

The Town of Guilford has identified the parking lot at Guilford Town hall and the Town Highway Garage as suitable locations for temporary housing after a disaster.

Permanent Housing

While the Town of Guilford did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.12.5 Hazard Event History Specific to the Town of Guilford

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Guilford's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.12-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.12-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 1, 2016	Flash Flood	No	Severe thunderstorms produced torrential rainfall, leading to areas of flash flooding on small streams and across roadways.	Water was flowing across CR-36 in several locations near the center of Guilford. Several homes were flooded, causing an estimated \$50,000 in property damages.
June 13, 2018	Severe Storm	No	Severe storms produced damaging thunderstorm winds (50 kts.) throughout the area.	Strong winds knocked down trees and power lines at the Tall Pines Campground, resulting in \$20,000 of property damages.

Notes:



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

9.12.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Guilford's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.12-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Guilford Lake Reservoir	Potable Water Facility	Yes	Yes	2021-T. Guilford-003

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its



potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Guilford. The Town of Guilford has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Guilford indicated the following:

- Agreement with calculated rankings – no changes made

Table 9.12-13. Hazard Ranking

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	High	Medium	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

**The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality*

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Moses Creek that runs through the hamlet of Guilford continues to flood breaching Furnace Hill Road and School Street as well as a private culvert on the creek. In addition to making the road impassable the basements of several houses and the Methodist church are repeatedly flooding. This seems to be happening now every year with torrential rainfalls.
- In Mount Upton the creek has washed the bank away filling the concrete causeway that runs through the hamlet with gravel diverting water out of the causeway into the basements of several homes. Gravel from the creek also spills out into the Unadilla River diverting water from the river bed. The causeway built in the 1960's is large enough to drive a 10 wheel dump truck through.
- Marble Road on which the new town hall and highway facilities are located has now flooded and was impassable three times in the last four years.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Cell service and reliable internet/broadband service.
- Route 8 hamlets along Unadilla River, Hamlet of Guilford along Moses Creek
- An issue I am concerned about is the lack of maintenance on electric lines to keep trees and brush trimmed back.

9.12.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.



Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.12-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
(Former TGM - 1)	Reinforcement of the banks	Flood	NYSDEC, Chenango County Soil/Water, Fish & Wildlife	Control flooding along the banks of Moses Brook from Guilford Lake to the Furnace Hill Rd., in addition to numerous small streams in the town. Reinforcement of the banks, diversion of the water flow to slow and reduce erosion, as directed by NYSDEC.	In Progress	\$50,000		In 2020 the Town plans to replace and enlarge the culvert on School Street at the lower end of the Moses Creek in the Hamlet of Guilford.
						Level of Protection	Low	
						Damages Avoided; Evidence of Success		
(Former TGM - 2)	Enhance stormwater management	Severe Storms	Town Highway Department, Chenango County Soil/Water, NYSDEC	Enhance stormwater management by resizing culverts and preparing a culvert replacement plan for areas prone to flooding or washouts	On-Going Capability	\$10,000		Plan has been to upsize all the culverts that are replaced. New culverts to double capacity on Phillips Odell Rd. and Railroad St.
						Level of Protection	x2	
						Damages Avoided; Evidence of Success		
(Former TGM - 3)	Control Construction of Beaver Dams	Flood	NYSDEC, Town Highway Department	Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions.	On-Going Capability	Cost		Continues to be problematic; on-going
						Level of Protection		
						Damages Avoided; Evidence of Success		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
(Former TGM - 4)	Coastal Erosion Control	Severe storm, Severe winter storm, Heavy snow run-off	ACOE, NYSDEC, FEMA, SEMO	Control erosion from Guilford Lake Dam to Furnace Hill Road to maintain integrity of public water supply.	In Progress	Cost	\$2.1 Million	1. Working with an engineer on dam safety 2. Developing a new water source for Guilford
						Level of Protection		
						Damages Avoided; Evidence of Success		
(Former TGM - 5)	Retrofit flood-prone roadways	Severe storm	Town Highway, County Highway	Retrofit flood-prone roadways. Specifically increase culvert sizes and raise the level of Marble Road	No Progress	Cost	\$60,000	Not moving forward due to cost
						Level of Protection		
						Damages Avoided; Evidence of Success		
(Former TGM - 6, -7)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	On-going Capability	Cost	-	Ongoing Capability of the Town.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Guilford has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- None identified

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Guilford worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.12-16 summarizes the comprehensive-range of specific mitigation initiatives the Town of Guilford would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.12-17 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.12-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	GRS Category
2021-T. Guilford-001	Furnace Hill Culvert Replacement	1, 2, 3, 4, 6	Flood, Severe Storm	<p>Problem: Furnace Hill Road floods at this location yearly in the spring and during times of significant rainfall. In 2006 and 2011, there was significant road damage.</p> <p>Solution: The Town Highway Department will increase the capacity of the box culvert on Furnace Hill Road, and clean the stream bed leading up to the culvert. The Town will also rebuild and stabilize the stream bank to reduce future flooding events and damages to the road.</p>	No	No	Short; within next 5 years	Town of Guilford Highway	Medium; \$50,000	High	FEMA HMA; Municipal Budget	High	SIP	SP; PP
2021-T. Guilford-002	Marble Road Elevation	3, 4, 7	Flood	<p>Problem: Marble Road has experienced major flooding in 2006 and 2001. The Roadway floods yearly with spring runoff from snow melt and heavy rainstorms.</p> <p>Solution: The Town Highway department will raise the level of the roadway above seasonal flood stage and repave as needed. Marble Road is an essential road to access Town Hall and the Town Highway Garage. Elevating the road will ensure the function of government and essential services year-round.</p>	No	No	Short; within next 5 years	Town of Guilford Highway	High	High	FEMA HMA; Municipal Budget	High	SIP	PP; SP; ES
2021-T. Guilford-003	Guilford Lake/Reservoir Dam Spillway Extension	2, 3, 4	Flood, Severe Storm, Erosion	<p>Problem: Excess flood water over Dam causes erosion beyond the spillway. Heavy rains result in over 1 foot of water topping the dam, causing significant erosion at the base of the spillway. The Guilford Lake Dam is classified as a high hazard dam as of 2018 with the designation of "unsound."</p> <p>Solution: The Town has consulted the DEC, which recommends extending the spillway and wingwalls to combat the erosion and flooding problems. The Town will work with the DEC and</p>	Yes 💧	No	Short; Will need 3 months to complete	Town of Guilford; NYSDEC	High	High; Avoids damages to Hamlet water system	FEMA BRIC; FEMA HHPD	High	SIP; NSP	SP; NR; PP



Table 9.12-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				contracted engineers to make the updates to the dam.										
2021-T. Guilford-004	Guilford Property Buyouts	All Goals	Flood	<p>Problem: Repetitive loss properties within the Town are located in areas that will not allow for other types of flood mitigation. Flood damages are repetitive and basements often experience flooding due to location near River.</p> <p>Solution: The Town will work with the property owners to purchase and demolish homes and create green space in the existing location.</p>	No	No	Within 5 years	Town of Guilford	High	High; Ensures life safety and eliminates flood risk for residents	FEMA FMA	Low	SIP; LPR	PR; PP; NR; SP

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NSP)* - These are actions that minimize damage and losses, and also 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

CRS Category:

- *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 also 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 9.12-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Guilford-001	Furnace Hill Culvert Replacement	1	1	1	1	1	1	0	1	0	1	1	1	1	1	12	High
2021-T. Guilford-002	Marble Road Elevation	1	1	1	0	1	1	0	1	1	1	1	0	1	0	10	High
2021-T. Guilford-003	Guilford Lake/Reservoir Dam Spillway Extension	1	1	1	1	1	1	-1	1	0	0	1	0	0	1	8	Medium
2021-T. Guilford-004	Guilford Property Buyouts	1	1	1	0	-1	-1	-1	1	-1	-1	0	0	0	1	1	Low

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.12.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.12-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA			CRS						
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Drought										
Disease Outbreak										
Extreme Temperatures										
Flood	004	001; 002; 003; 004	003		004	001; 002; 003; 004		003; 004	001; 002; 003; 004	002
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001; 002; 003				001; 002			001; 002	002
Severe Winter Storm										
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.12.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Guilford followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: The Supervisor's Office and the Highway Department. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

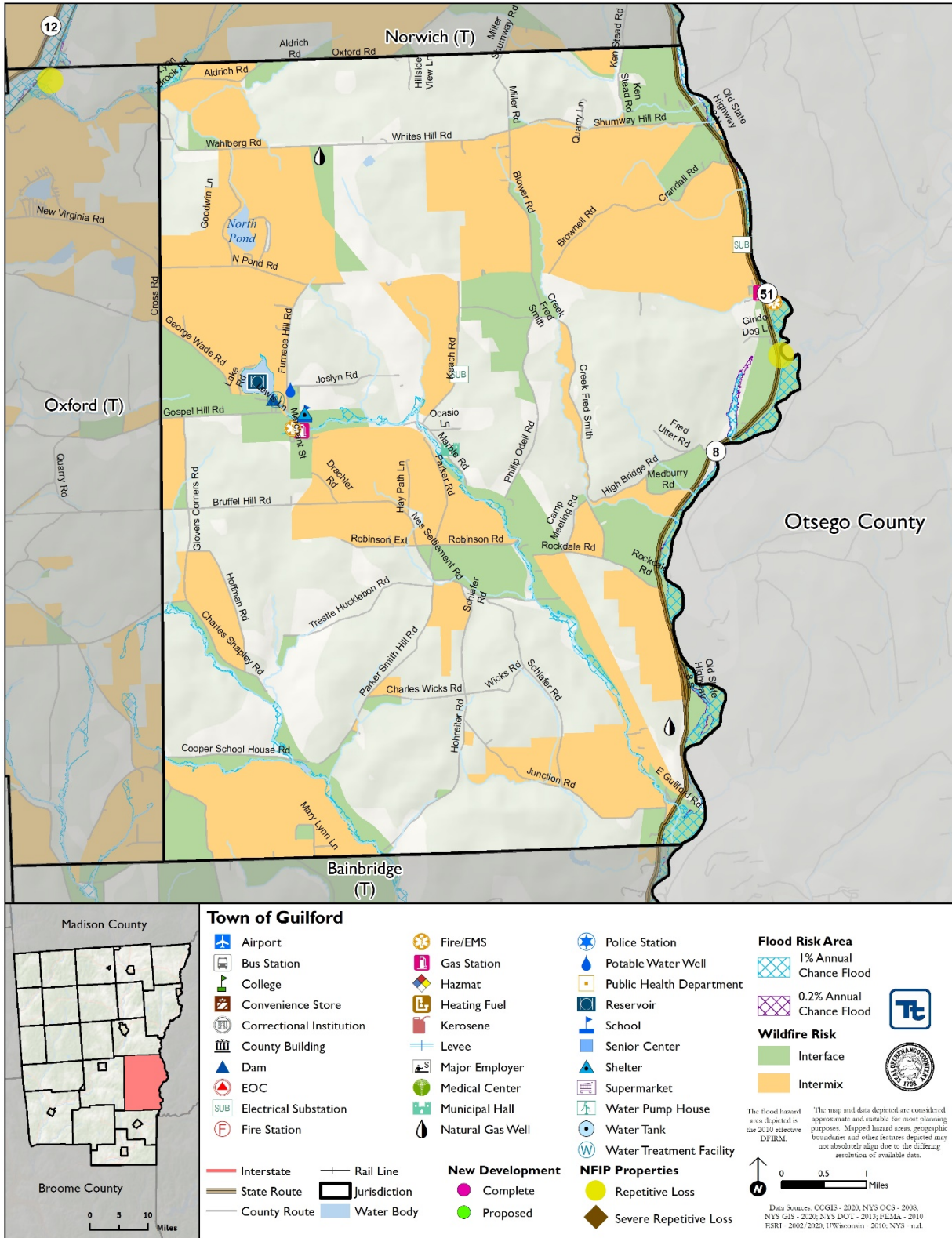
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.12.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Guilford that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Guilford has significant exposure. The map is illustrated below.



Figure 9.12-1. Town of Guilford Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Furnace Hill Culvert Replacement		
Project Number:	2021-T. Guilford-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Furnace Hill Road floods at this location yearly in the spring and during times of significant rainfall. In 2006 and 2011, there was significant road damage.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Highway Department will increase the capacity of the box culvert on Furnace Hill Road, and clean the stream bed leading up to the culvert. The Town will also rebuild and stabilize the stream bank to reduce future flooding events and damages to the road.		
Is this project related to a Critical Facility?		No	
Is the critical facility located in the 1% annual chance flood area?			
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	1000- year flood	Estimated Benefits (losses avoided):	High, reduces losses to property owners
Useful Life:	30 years	Goals Met:	1, 2, 3, 4, 6
Estimated Cost:	\$50,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Next 5 years
Estimated Time Required for Project Implementation:	10-14 days	Potential Funding Sources:	FEMA HMA; Municipal Budget
Responsible Organization:	Town of Guilford Highway	Local Planning Mechanisms to be Used in Implementation if any:	Capital Improvement; Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Build berm	\$20,000	Highway still floods
	Build floodwall	\$50,000	Highway still floods
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Furnace Hill Culvert Replacement	
Project Number:	2021-T. Guilford-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Prevents highway flooding
Property Protection	1	Will prevent damage to nearby properties
Cost-Effectiveness	1	Replaces smaller box culvert
Technical	1	Can be completed by town highway department
Political	1	Full Town Board support
Legal	1	Town Highway has jurisdiction
Fiscal	0	Town currently lacks funding
Environmental	1	Prevents future streambank erosion
Social	0	No social impact
Administrative	1	Can be supervised by highway superintendent
Multi-Hazard	1	Yes, prevents basement flooding and erosion and damages from heavy rains
Timeline	1	Can be completed asap with funding
Agency Champion	1	Would reduce or prevent flooding in Hamlet
Other Community Objectives	1	Yes, capital improvement, short-term
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Marble Road Elevation		
Project Number:	2021-T. Guilford-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Marble Road has experienced major flooding in 2006 and 2001. The Roadway floods yearly with spring runoff from snow melt and heavy rainstorms.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Highway department will raise the level of the roadway above seasonal flood stage and repave as needed. Marble Road is an essential road to access Town Hall and the Town Highway Garage. Elevating the road will ensure the function of government and essential services year-round.		
Is this project related to a Critical Facility?			No
Is the critical facility located in the 1% annual chance flood area?			-
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood event	Estimated Benefits (losses avoided):	High; ensures continual operation of government
Useful Life:	Permanent, 99 years	Goals Met:	3, 4, 7
Estimated Cost:	High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within next 5 years
Estimated Time Required for Project Implementation:	2-3 weeks	Potential Funding Sources:	FEMA HMA; Municipal Budget
Responsible Organization:	Town of Guilford Highway	Local Planning Mechanisms to be Used in Implementation if any:	Capital Improvement; Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Buyout of all properties in Hamlet	N/A	Impossible, Town will lose tax-base
	Relocate roadway	N/A	Unfeasible, Marble Road is main road through Hamlet to access Town Hall and Highway garage
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Marble Road Elevation	
Project Number:	2021-T. Guilford-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Allows access to Town Hall and Highway Garage
Property Protection	1	Allows Town Highway to respond to emergency calls
Cost-Effectiveness	1	Only feasible option
Technical	1	Can be completed by Town Highway
Political	1	Supported by Town officials
Legal	1	Town Highway has jurisdiction
Fiscal	0	Town currently lacks funding
Environmental	1	Will prevent flooding of nearby properties
Social	0	No impacts
Administrative	1	Supervised by Town Highway Superintendent
Multi-Hazard	1	Flood and Severe Storm
Timeline	1	With funding can be completed by 2022
Agency Champion	1	Prevent town facilities from being cut-off
Other Community Objectives	1	Capital improvement short term
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Guilford Lake/Reservoir Dam Spillway Extension		
Project Number:	2021-T. Guilford-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Erosion		
Description of the Problem:	Excess flood water over Dam causes erosion beyond the spillway. Heavy rains result in over 1 foot of water topping the dam, causing significant erosion at the base of the spillway. The Guilford Lake Dam is classified as a high hazard dam as of 2018 with the designation of "unsound."		
Action or Project Intended for Implementation			
Description of the Solution:	The Town has consulted the DEC, which recommends extending the spillway and wingwalls to combat the erosion and flooding problems. The Town will work with the DEC and contracted engineers to make the updates to the dam.		
Is this project related to a Critical Facility?			Yes
Is the critical facility located in the 1% annual chance flood area?			Yes
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood event	Estimated Benefits (losses avoided):	High; avoids damages to Hamlet water system and residences
Useful Life:	30 years	Goals Met:	2, 3, 4
Estimated Cost:	High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	Medium	Desired Timeframe for Implementation:	1 – 5 years
Estimated Time Required for Project Implementation:	3 months	Potential Funding Sources:	FEMA BRIC; FEMA HHPD
Responsible Organization:	Town of Guilford	Local Planning Mechanisms to be Used in Implementation if any:	Capital Improvement; Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Drain Lake/decommission Dam	N/A	Impossible, Town will lose water supply
	Replace existing structure	\$5M+	Not cost effective, repairs should be enough to fix the erosion issue as the structure is not damaged
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Guilford Lake/Reservoir Dam Spillway Extension	
Project Number:	2021-T. Guilford-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Prevent damage to hamlet water system
Property Protection	1	Prevent damage to water system inlet pipe
Cost-Effectiveness	1	DEC recommendation to ensure Dam Safety
Technical	1	
Political	1	Supported by Town
Legal	1	Yes – property owned by water department
Fiscal	-1	Water district serves 88 customers; Town lacks revenue to complete project
Environmental	1	Will prevent further stream erosion
Social	0	No immediate/nearby residents
Administrative	0	Project management and engineering help needed
Multi-Hazard	1	Flood, Severe Storm, Erosion
Timeline	0	
Agency Champion	0	Current Town Board needs to review
Other Community Objectives	1	Reduce Hamlet flooding
Total	8	
Priority (High/Med/Low)	Medium	



Action Worksheet			
Project Name:	Guilford Property Buyouts		
Project Number:	2021-T. Guilford-004		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	Repetitive loss properties within the Town are located in areas that will not allow for other types of flood mitigation. Flood damages are repetitive and basements often experience flooding due to location near River.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will work with the property owners to purchase and demolish homes and create green space in the existing location.		
Is this project related to a Critical Facility?			No
Is the critical facility located in the 1% annual chance flood area?			-
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood event	Estimated Benefits (losses avoided):	High; ensures life safety and eliminates flood risk for these residents
Useful Life:	Permanent, 99 years	Goals Met:	All Goals
Estimated Cost:	High	Mitigation Action Type:	SIP, LPR
Plan for Implementation			
Prioritization:	Low	Desired Timeframe for Implementation:	5 years
Estimated Time Required for Project Implementation:	5 years	Potential Funding Sources:	FEMA FMA
Responsible Organization:	Town of Guilford	Local Planning Mechanisms to be Used in Implementation if any:	County Codes; Local Floodplain laws
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Redirect river	N/A	Unfeasible; high environmental concerns, does not eliminate flash flood risk
	Elevate homes	\$1M	Homes experience basement flooding, elevations will not reduce risk
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Guilford Property Buyouts	
Project Number:	2021-T. Guilford-004	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Homeowners will not need to evacuate during storms
Property Protection	1	Prevents homes from repetitive flooding
Cost-Effectiveness	1	Only feasible option
Technical	0	Will need FEMA assistance
Political	-1	Loss of tax revenue
Legal	-1	Needs support of homeowners
Fiscal	-1	Town currently lacks funding
Environmental	1	Will create green space within Town
Social	-1	Opposed by homeowners
Administrative	-1	Will need to hire contractor
Multi-Hazard	0	Flood
Timeline	0	Currently not planned
Agency Champion	0	Not under discussion currently
Other Community Objectives	1	Local floodplain management laws
Total	1	
Priority (High/Med/Low)	Low	



9.13 Town of Lincklaen

This section presents the jurisdictional annex for the Town of Lincklaen. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Lincklaen's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.13.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Lincklaen's hazard mitigation plan primary and alternate points of contact.

Table 9.13-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Wayne Outwater, Town Supervisor 568 Union Valley Rd. Pitcher, NY 13136 315-852-6000 woutwater@yahoo.com	Travis Hull, Supervisor of Highways 568 Union Valley Rd. Pitcher, NY 13136 315-852-9573
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.13.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 396.

The Town of Lincklaen is located in the northwest corner of Chenango bordered west by Cortland; north by Madison County; east by the Town of Otselic; and south by the Town of Pitcher. The primary route through the Town is County Road 12 and the principle water way is "Mud Creek".

The Town of Lincklaen was once part of the Town of German. The first settlers, three brothers of the Catlin family, arrived around 1796. For many years the area was known as "Catlin Settlement". Colonel John Lincklaen, an agent of the Holland Land Company was instrumental in developing the virgin forests in this northwest section of Chenango County. Several hamlets developed in the area known as: Burdick Settlement, Catlin Settlement, Lincklaen, Lincklaen Center, "Stillman Street", Rhode Island Settlement and Mariposa. On April 12, 1823 the area became known as the Town of Lincklaen when it separated from the Town of German. By 1865 the population of Lincklaen had grown to 988 residents. There were ten (10) common school districts with an average student attendance of 140.

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By 1865 the population of Lincklaen had grown to 988 residents. There were ten (10) common school districts with an average student attendance of 140.

9.13.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.13-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.13-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.13-2. Recent and Expected Future Development

Type of Development	2014		2015		2016		2017		2018	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.13.4 Capability Assessment

The Town of Lincklaen performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.



For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.13.4). The Town of Lincklaen identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Lincklaen and where hazard mitigation has been integrated.

Table 9.13-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 1989	Local	Local Planning Board	No	Yes	-
Comment: Incorporates Stormwater Management Regulations							
Stormwater Management Regulations	No	Subdivision Regulations	Local	Subdivision Regulations	Yes NYSDEC permits required for any major construction projects	Yes	-
Comment: Within the Town Subdivision Regulations							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	No	-	Local	-	No	-	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a	Local	Local Planning Board	No	No	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	No	Title 6 NYCRR Part 617	State	-	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Adopted 6/1983, Amended 8/19/2010	Local, State, Federal	Administered by County Code Official under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Local Law # 1 of 2010. A local law for Flood Damage Prevention as authorized by the New York State Constitution, Article IX, Section 2, and Environmental Conservation Law, Article 36. The Town Board of the Town of Lincklaen finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Lincklaen and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program. The areas of special flood hazard for the Town of Lincklaen, Community Number 361376, are identified and defined on the documents prepared by the Federal Emergency Management Agency as the Flood Insurance Rate Map Panel Numbers that affect the community. The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
<p>reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels.</p> <ul style="list-style-type: none"> New and substantially improved residential and non-residential structures located in areas of special flood hazard shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. In order to prevent potential flood damage to certain facilities that would result in serious danger to life and health, or widespread social or economic dislocation, no new critical facility shall be located within any Area of Special Flood Hazard, or within any 500-year flood zone shown as a B zone or a Shaded X zone on the Community's Flood Insurance Rate Maps. 							
Municipal Separate Storm Sewer System (MS4) Regulation	No	EPA Phase II Stormwater Rule	Federal	-	Yes	-	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	County OEM	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	NYS Executive Law, Article 75	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	-
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	-	-	-	-	-	-
Comment: Junkyard. Adopted 2001 – Junk Law, This law is adopted pursuant to the authority granted the Town in the Section 10 of the Municipal Home Rule Law and Section 136 of the General Municipal Law (pertaining to the regulation of junk). Adopted By The Lincklaen Town Board 12/18/2018. Sanitary Code. Adopted 1986 updated 2019 Mobile Home/Parks. Adopted 1994 updated 2019							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							



SECTION 9.13: Town of Lincklaen

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Disaster Debris Management Plan	No	-	Local	?	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	-	Local	NYSDEC permit and Federal Agencies	No	No	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	No	Subdivision Regulations	Local	-	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	NA	NA
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	Yes	Updated Yearly	Local	Highway Department	No	No	-
Comment:							
Agriculture Plan	Yes	NYCRR Part 390 Agricultural	Local	County	Yes	No	-



SECTION 9.13: Town of Lincklaen

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
		and Farmland Protection -					
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other (tourism, business dev, etc.)	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Fire District/Chenango County EMS	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Yearly through insurance company	Local	Local OEM	Yes	No	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	-	Local	County	No	No	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

**Table 9.13-4. Development and Permitting Capability**

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, planning board approves, then town board approves, then clerk signs
Permits are tracked by hazard area. For example, floodplain development permits.	Yes, planning board determines before permits are given
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Lincklaen.

Table 9.13-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	
Mutual aid agreements	Yes	Fire – Cuyler and Otselic Valley Fire
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	Yes	County Planning & Development
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	MOU with County to utilize services of NFIP Floodplain Administrator
Surveyor(s)	Yes	County Highway Department, if staff is available
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Cuyler and So. Otselic Fire Departments
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Lincklaen.



Table 9.13-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Lincklaen.

Table 9.13-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes, Town Clerk
Personnel skilled or trained in website development?	Yes, Town Clerk
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No social media
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Hi neighbor; town hall bulletin board
Warning systems for hazard events; if yes, briefly describe.	No
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No schools within the Town – Otselec Valley and DeRuyter
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Lincklaen.

Table 9.13-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A



Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	No	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.13-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Drought	Medium
Disease Outbreak	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Lincklaen.



Table 9.13-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Lincklaen	0	0	\$0	0	-	0

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Lincklaen has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Lincklaen has not completed any Community Assistance Visits (CAV), due to its location outside of the SFHA.

Regulatory

The Town of Lincklaen Flood Damage Prevention Ordinance (FDPO) was last updated on August 19, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Floodplain Management/Infrastructure Protection:** Control flooding along the banks of the Mud Creek by reinforcing the banks, divert the water flow to slow or prevent erosion, as directed by NYSDEC.
- **Floodplain Management/Infrastructure Protection:** Enhance Stormwater Management by increasing the size and capacity of existing culverts, as well as installing additional culverts in problem areas. Review or initiate plan for a replacement program.
- **Floodplain Management/Infrastructure Protection:** Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in



wetland areas adjacent to Hyer and Millers Corners Rd., for example. These areas often flood creating hazardous conditions.

- **Floodplain Management:** Consider non-structural flood hazard mitigation alternatives for at risk properties within floodplain areas by acquisition, relocation or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.
- **Floodplain Management/Infrastructure Protection:** Retrofit flood-prone roadway, Hyer Road, which is critical to infrastructure of the Town of Lincklaen.
- **Floodplain Management/Infrastructure Protection/Land Use Plans:** Consider participation in incentive-based programs such as CRS
- **Floodplain Management/Infrastructure Protection/Land Use Plans:** Support County-wide initiatives identified in Section 9.1, Volume II of this Plan

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

CR-12 and CR13 are commonly used for evacuations. However, evacuation routes are specific to hazard event and routes will vary according to the location and type of event. Residents should seek up-to-date information from the Chenango County Office of Emergency Management.

Sheltering

Town Barn has backup generator and can be used as a temporary shelter or heating/cooling center.

Temporary Housing

Town Hall or Town Barn has space in the parking lot to house temporary sheltering units. The Lincklaen mobile park could also be used depending on vacancy.

Permanent Housing

While the Town of Lincklaen did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.13.5 Hazard Event History Specific to the Town of Lincklaen

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Lincklaen's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.13-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.



Table 9.13-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
July 30, 2019	Hail	No	A slow moving cold front and an upper level trough moved through Central New York during the afternoon and early evening of the 30th. This sparked a round of severe thunderstorms across the area.	One-inch hail was reported in the Town of Lincklaen

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.13.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Lincklaen's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

**Table 9.13-12. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None Identified				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Lincklaen. The Town of Lincklaen has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Lincklaen indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.13-13. Hazard Ranking Input

Drought	Disease Outbreak	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Low	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Roadways adjacent to streams in the town continue to have problems during heavy rain storms.
- The stream entering Lincklaen, near 177 Union Valley Rd. into Mud Creek, is undermining a residence in close proximity to the stream.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- No Response

9.13.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.



Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.13-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Not Indicated	
TLK-1	Stabilize creek bank	Flood, Severe Storm	Town Highway Department, Chenango County Soil/Water	Stabilize creek bank along Stony Brook and Factory-Gulf Hill Rd. to prevent continued washout, jeopardizing road infrastructure	Complete 2016	Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TLK-2 (Former TLK-1)	Control Flooding along Mud Creek	Flood	NYSDEC, Chenango County Soil/Water, Fish & Wildlife	Control flooding along the banks of the Mud Creek by reinforcing the banks, divert the water flow to slow or prevent erosion, as directed by NYSDEC.	Ongoing	Cost	-	See Mitigation Action # 2021-T. Lincklaen-003
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TLK-3 (Former TLK -2)	Enhance stormwater management	Severe storm	Town Highway Department, Chenango County Soil/Water, NYDEC	Enhance Stormwater Management by increasing the size and capacity of existing culverts, as well as installing additional culverts in problem areas. Review or initiate plan for a replacement program.	Ongoing	Cost	-	The Town continues to retrofit and update flood prone roadways. See Table 9.13-15 (Proposed Hazard Mitigation Initiatives) below.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TLK-4 (Former TLK -3)	Control construction of Beaver Dams	Flood	NYSDEC, Town of Lincklaen Highway	Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas adjacent to Dublin road area for example. These areas often flood creating hazardous conditions.	Ongoing	Cost		See Mitigation Action # 2021-T. Lincklaen-001
						Level of Protection		
						Damages Avoided; Evidence of Success		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TLK-5 (Former TLK -4)	Consider non-structural flood hazard mitigation	Severe storms, Heavy snow, Run-off	Lincklaen Town Council, FEMA, NYS DHSES	Consider non-structural flood hazard mitigation alternatives for at risk properties within floodplain areas by acquisition, relocation or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.	Ongoing Capability	Cost	-	The Town continually supports non-structural flood mitigation.
						Level of Protection		
						Damages Avoided; Evidence of Success		
TLK-6 (Former TLK -5)	Retrofit flood-prone roadway	Severe Storms	Town Highway Department, County Highway Department	Retrofit flood-prone roadway, Hyer Road, which is critical to infrastructure of the Town of Lincklaen.	Ongoing	Cost	-	The Town continues to retrofit and update flood prone roadways. See Table 9.13-15 (Proposed Hazard Mitigation Initiatives) below.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TLK-7 (Former TLK -6, -7)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	This is part of the Town’s day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TLK-8	Replace deteriorating	Severe storms	Town Highway	Replace the deteriorating culvert		Cost	Not Indicated	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Level of Protection	-	
	culvert and pipes		Department, County Highway Department	and pipes on Paradise Road to improve drainage.	Complete 2014	Damages Avoided; Evidence of Success		
TLK-9	Elevate Neil Road	Severe storms	Town Highway Department, County Highway Department	Elevate Neil Road along a 300 yard section to improve drainage problem.	Complete 2019	Cost	Not Indicated	-
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Lincklaen has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- None Indicated

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Lincklaen worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.13-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Lincklaen would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.13-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.13-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Lincklaen-001	Dublin Road Culvert	2, 4, 6	Severe Storm, Flood	Problem: The two culvert pipes on Dublin Road are currently plastic and are undersized, resulting in washouts and flooding of the roadways due to the amount of water from heavy storms.	No	No	Short, 6 months	Highway Department	Low, \$3,600/culvert	High, reduces erosion and roadway closures	FEMA HMA, Municipal Budget	High	SIP	SP
				Solution: The Town Highway Department will replace the two culvert pipes with a larger pipe that will allow more water to flow through the area and not cause additional erosion and deterioration of the roadside. Cost estimates to replace the pipes is \$3,600 each.										
2021-T. Lincklaen-002	Factory Gulf/Johnson Road Culvert	2, 4, 6	Severe Storm, Flood	Problem: The corner where Factory Gulf Road and Johnson Road meet crosses a branch of the Mud Creek and is served by two plastic culvert pipes. This intersection experiences frequent flooding and washouts due to the large amount of water flowing through the area.	No	No	Short, 6 months	Highway Department	Low, \$3,600/culvert	High, reduces erosion and roadway closures	FEMA HMA, Municipal Budget	High	SIP	SP
				Solution: The Town Highway Department will replace the existing culvert pipes with larger pipes more appropriately sized to handle the increasing water flows. Cost estimates are \$3,600/pipe.										
2021-T. Lincklaen-003	Mud Creek Flooding	2, 4, 6	Flood, Severe Storm	Problem: The Mud Creek and its branches flow throughout the town and have experiences erosion, resulting in increased flooding events.	No	No	Short, within scope of HMP	Town Board with support from Chenango County SWCD and NYSDEC	Medium	High, reduces erosion and flooding throughout Town	CCSWCD, NYSDEC grants	Medium	NSP	NP
				Solution: The Town, supported by the Chenango County SWCD and NYSDEC will continue to control flooding along the banks of the Mud Creek by reinforcing the banks, adding stabilization measures to divert the water flow to slow or prevent erosion.										



Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.13-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Lincklaen-001	Dublin Road Culvert	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021-T. Lincklaen-002	Factory Gulf/Johnson Road Culvert	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021-T. Lincklaen-003	Mud Creek Flooding	1	1	1	0	1	1	0	0	1	0	1	0	0	1	8	Medium

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.13.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.13-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood		001, 002	003					003	001, 002	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001, 002	003					003	001, 002	
Severe Winter Storm										
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.13.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Lincklaen followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: The Supervisor's Office and the Highway Department. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

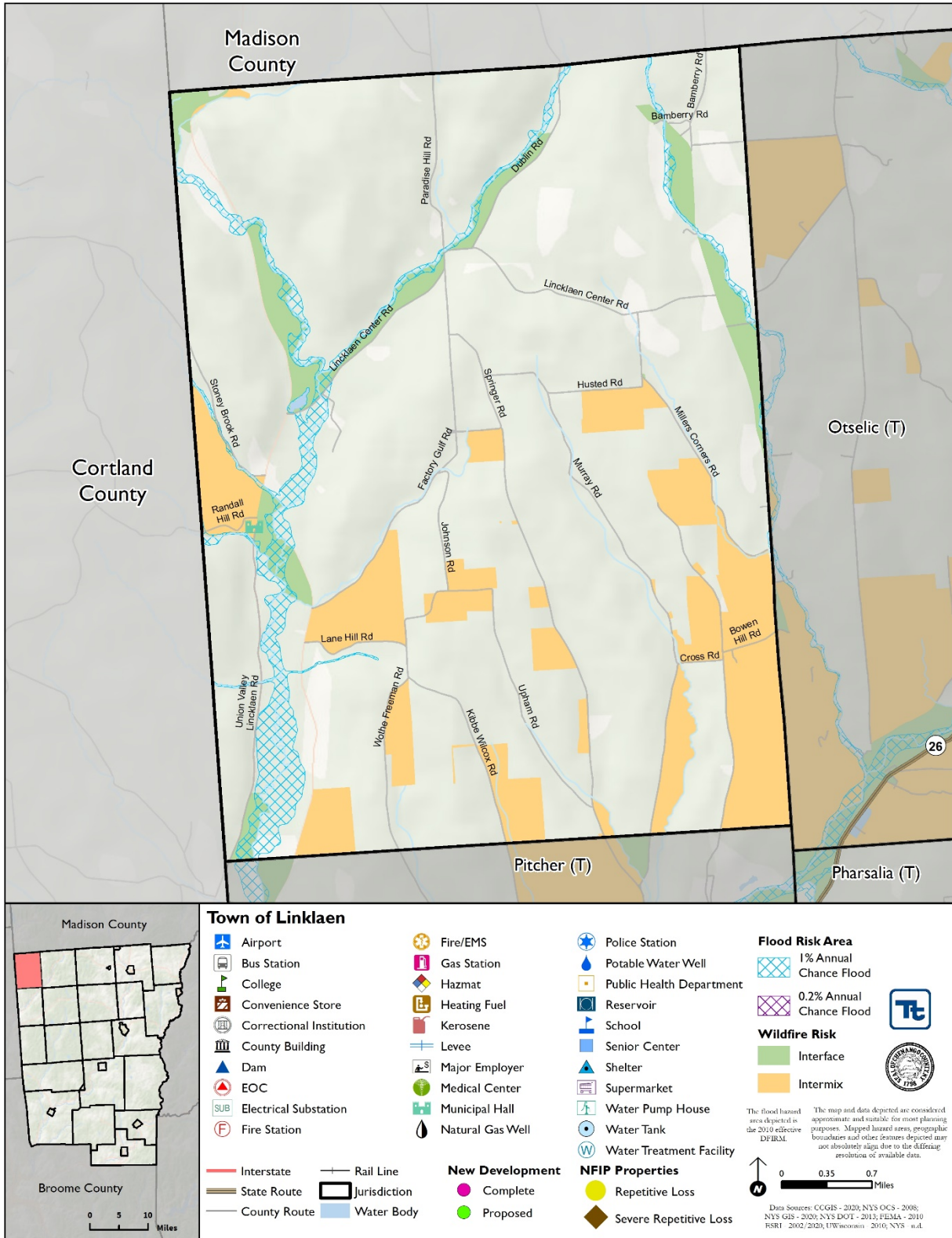
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.13.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Lincklaen that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Lincklaen has significant exposure. The map is illustrated below.



Figure 9.13-1. Town of Lincklaen Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Dublin Road Culvert		
Project Number:	2021-T. Lincklaen-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Storm, Flood		
Description of the Problem:	The two culvert pipes on Dublin Road are currently plastic and are undersized, resulting in washouts and flooding of the roadways due to the amount of water from heavy storms.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Highway Department will replace the two culvert pipes with a larger pipe that will allow more water to flow through the area and not cause additional erosion and deterioration of the roadside. Cost estimates to replace the pipes is \$3,600 each.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	Reduces erosion and roadway closures
Useful Life:	50 years	Goals Met:	2, 4, 6
Estimated Cost:	\$3,600/culvert pipe	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	1 year
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	FEMA HMA, Municipal Budget
Responsible Organization:	Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate roadway	N/A	Road is essential and too long to elevate, unfeasible
	Replace culverts with Bridge	N/A	Culvert crossing is within State Park, will disturb the natural lands
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Dublin Road Culvert	
Project Number:	2021-T. Lincklaen-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Dublin road is an essential roadway
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	Highway department has capacity to replace culverts
Political	1	
Legal	1	
Fiscal	0	May need funding support
Environmental	1	No anticipated concerns
Social	1	
Administrative	1	
Multi-Hazard	1	Severe storms and flooding
Timeline	1	
Agency Champion	1	Town Supervisor
Other Community Objectives	1	
Total	13	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Factory Gulf/Johnson Road Culvert		
Project Number:	2021-T. Lincklaen-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Storm, Flood		
Description of the Problem:	The corner where Factory Gulf Road and Johnson Road meet crosses a branch of the Mud Creek and is served by two plastic culvert pipes. This intersection experiences frequent flooding and washouts due to the large amount of water flowing through the area.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Highway Department will replace the existing culvert pipes with larger pipes more appropriately sized to handle the increasing water flows. Cost estimates are \$3,600/pipe.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	Reduces erosion and roadway closures
Useful Life:	50 years	Goals Met:	2, 4, 6
Estimated Cost:	\$3,600/culvert pipe	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	1 year
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	FEMA HMA, Municipal Budget
Responsible Organization:	Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate roadway away from Creek	N/A	Intersection is within State Park, will disturb natural lands
	Elevate roadway	N/A	Unfeasible and would not have community support
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Factory Gulf/Johnson Road Culvert	
Project Number:	2021-T. Lincklaen-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Intersection is essential
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	Highway department has capacity to replace culverts
Political	1	
Legal	1	
Fiscal	0	May need funding support
Environmental	1	No anticipated concerns
Social	1	
Administrative	1	
Multi-Hazard	1	Severe storms and flooding
Timeline	1	
Agency Champion	1	Town Supervisor
Other Community Objectives	1	
Total	13	
Priority (High/Med/Low)	High	



9.14 Town of McDonough

This section presents the jurisdictional annex for the Town of McDonough. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of McDonough's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.14.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of McDonough's hazard mitigation plan primary and alternate points of contact.

Table 9.14-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Glen Naber, Highway Superintendent 1759 St. Hwy 220, McDonough 13801 607-647-5589	Raymond Wakefield, Town Supervisor 298 Chestnut Rd, McDonough, NY 13801 607-647-5507 mcdonoughtownsupervisor@outlook.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court Street Norwich, NY 13815 (607) 337-1975 StevenF@co.chenango.ny.us	

9.14.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 886.

The Town of McDonough is located in the central western portion of Chenango County. It is bordered on the east the Town of Preston, west the Town of German, north the Town of Pharsalia and south the Town of Smithville. NYS Rt. 220 meanders through the town as a primary route connecting with County roads 5, 7 and 8.

The Town of McDonough was once referred to a "Mac-Donough" and founded in 1795 by settlers Sylvanus Moore, James Talmadge, Nathaniel Locke, Capt. Joshua Buhi, Loring and Emory Willard and Henry Ludlow. The town was named after Commodore Thomas Macdonough, a naval officer who served on Lake Champlain and other locations with the U.S. Navy. The Town of McDonough was incorporated from the Town of Preston on April 17, 1816.

The Hotel Phoenix was built in 1885 and destroyed by fire in 1913. In the early 1920's there was an active Sulfur Spring and Spa located on Creek Rd. that many tourists visited in the summer. Industry in the area has consisted of: a Tannery, Creamery, Grist Mill, and Hammer Mill. The flood of 1935 destroyed all the bridges and industry in the town. The Ford Pre-fabricated Homes manufacturing was active in the late 1930's-70's.

The town is very rural and the majority of the land is forest. The growth of the town resulted in development of several areas: the hamlet of McDonough, East McDonough, Lake Ludlow, Genegantslet Lake, Steeres and Bowman Lake State Park.



The Town of McDonough is governed by an elected five member Town Board composed of a Town Supervisor, who also represents the town at the County Board of Supervisors, and four (4) Council members. This governing body will assume responsibility for adoption and implementation of this plan.

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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.14-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.14-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.14-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.14.3 Capability Assessment

The Town of McDonough performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.



For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.14.3). The Town of McDonough identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of McDonough and where hazard mitigation has been integrated.

Table 9.14-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	No	-	Local	-	No	-	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	Yes	Title 6, Ch. X,17-7,8,70	Local	Town Board	Yes NYSDEC permits required for any major construction projects	-	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001



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	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	No	-	Local	-	No	-	-
Comment: In New York State, virtually all land use regulation, which is the primary tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	No	-	Local	-	No	-	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	-	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Federal Participation in the NFIP State: Community Risk and Resiliency Act (CRRRA)	Local, State, Federal	Administered by County Code Official under and MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	-
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> It is the purpose of this local law to: (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard (including proposals for manufactured home and recreational vehicle parks and subdivisions): (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. Regulated residential and nonresidential structures in the SFHA must be elevated so the lowest floor is a minimum of two feet above the BFE. Critical Facilities ; In order to prevent potential flood damage to certain facilities that would result in serious danger to life and health, or widespread social or economic dislocation, no new critical facility shall be located within any Area of Special Flood Hazard, or within any 500-year flood zone shown as a B zone or a Shaded X zone on the Community's Flood Insurance Rate Maps. 							
Municipal Separate Storm Sewer System	Yes	EPA Phase II Stormwater Rule	Federal	-	Yes	-	-



SECTION 9.14: Town of McDonough

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
(MS4) Regulation							
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	McDonough Fire District/Chenango County EMS	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	NYS Executive Law, Article 75	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	Section 130-19, Adopted 2009, Road Preservation Local Law	Local	McDonough Highway Superintendent	No	No	-
Comment: Junkyard/Recycling Regulations. Adopted 8/10/1999 <ul style="list-style-type: none"> Section 130-19, Adopted Town Of McDonough, Road Preservation Local Law, Local Law No. 2 of 2009. The purpose of this law is to maintain the safety and general welfare of Town residents by regulating commercial activities that have the potential to adversely affect road rights-of-way. Well maintained roads are important to the economic well being of the Town. Commercial endeavors, such as timber harvesting, gas, and oil exploration and mining, are also economically beneficial. This law is not intended to regulate such business: the intent is to protect the public rights-of-way from damage. 							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	-	Local	NYSDEC permit and Federal Agencies	No	No	-



SECTION 9.14: Town of McDonough

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	-	Local	-	No	No	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	NA	NA
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other (tourism, business dev, etc.)	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	McDonough Fire District/Chenango County EMS	Yes	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations."							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	-	Local	McDonough Fire District/Chenango County EMS	No	No	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

Table 9.14-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	-
Permits are tracked by hazard area. For example, floodplain development permits.	-
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	-

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of McDonough.



Table 9.14-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	No	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	Yes	Chenango County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	MOU with Chenango County to utilize County Floodplain Administrator
Surveyor(s)	Yes	County Highway Department if staff is available
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with McDonough Fire Department
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of McDonough.

Table 9.14-6. Fiscal Capabilities

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



Financial Resources	Accessible or Eligible to Use (Yes/No)
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of McDonough.

Table 9.14-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	Yes – Town maintains a website
Hazard mitigation information available on your website; if yes, describe	Yes, links to the HMP website and Citizen Survey
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No Social Media
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach and Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	-
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of McDonough.

Table 9.14-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other			

Note:

N/A Not applicable
NP Not participating
- Unavailable



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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.14-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of McDonough.

Table 9.14-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of McDonough	4	0	\$0	0	-	1

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss



Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Compliance History

The Town of McDonough has not completed any Community Assistance Visits (CAV), due to its location outside of the SFHA.

Regulatory

The Town of McDonough Flood Damage Prevention Ordinance (FDPO) was last updated in 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

- **Infrastructure Protection/Floodplain Management:** Control flooding along the banks of the stream from the Genegantslet Lake down to where it meets the Genegantslet Creek, by reinforcing the banks, and diverting water flow to slow or prevent erosion, as directed by NYSDEC. Prevention and maintenance will maintain stream integrity.
- **Infrastructure Protection/Floodplain Management:** Enhance Stormwater Management by increasing size and capacity of culverts. Install larger concrete box culvert on Pike Rd. to alleviate flooding
- **Infrastructure Protection/Floodplain Management:** Control construction of Beaver Dams along Creek Rd., Strong Rd. Chestnut Rd, Loomis Rd and Shore Rd. By monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions.
- **Floodplain Management:** Consider non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as repetitive loss, such as acquisition/relocation or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.
- **Infrastructure Protection/Floodplain Management:** Retrofit flood-prone roadways that are critical to infrastructure (Pike Road, Strong Road, Sherman-Bliven Road) by raising low areas in the road and increase size of culverts.



- **Floodplain Management/Land Use Plans:** Consider participation in incentive-based programs such as CRS

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

NY-220, County Road 7 and County Road 5 should be used as evacuation routes out of the Town.

Sheltering

The McDonough United Methodist Church has been identified as a shelter in the American Red Cross National Shelter System (NSS).

Temporary Housing

The Town of McDonough has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of McDonough did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.14.4 Hazard Event History Specific to the Town of McDonough

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of McDonough's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.14-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.14-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
June 30, 2017	Thunderstorm Wind	No	A thunderstorm moved across the region and became severe. This thunderstorm produced severe winds and knocked over trees and wires. This storm also knocked over trees and wires in the towns of Preston, Pharsalia and Willet.	Property Damages as a result of the storm were estimated at \$10,000.



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
April 16, 2017	Thunderstorm Wind	No	A thunderstorm moved across the region and became severe. This thunderstorm resulted in trees being knocked over on wires on route 220.	Property Damages as a result of the storm were estimated at \$5,000.
August 12, 2017	Thunderstorm Wind	No	A thunderstorm moved across the region and became severe. This thunderstorm produced severe winds and knocked over multiple trees blocking the road at State Park.	Property Damages as a result of the storm were estimated at \$8,000.
October 7, 2021	Thunderstorm Wind	No	Strong thunderstorm winds brought down trees on Armstrong Road.	Property Damages as a result of the storm were estimated at \$5,000.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.14.5 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of McDonough's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).



The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.14-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Genegantslet Lake Dam	Dam	Yes	Yes	2021-T. McDonough-001

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of McDonough. The Town of McDonough has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of McDonough indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.14-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Areas with flooding problems: Strong Rd., Balsam-Tyler Rd., Hoben Rd., Waldron Rd. and intersection of Corbin/Chestnut roads.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:



- Pike Road in McDonough. A house at this location was built in the flood plain and has been flooded repeatedly.
- Lack of cell phone services for emergencies in the rural areas.
- I'm going to guess that most of the critical facilities in McDonough (with the exception of the fire department) lack backup power.

9.14.6 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.14-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TMD-1 (Former TMD-1)	Control flooding along the banks of the stream from the Genegantslet Lake	Flood Severe Storm	NYSDEC, Chenango County Soil/Water, Fish & Wildlife	Control flooding along the banks of the stream from the Genegantslet Lake down to where it meets the Genegantslet Creek, by reinforcing the banks, and diverting water flow to slow or prevent erosion, as directed by NYSDEC. Prevention and maintenance will maintain stream integrity	Ongoing	Cost	-	The Town continues to work with NYSDEC to control flooding and waterways.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TMD-2 (Former TMD -2)	Enhance Stormwater Management by increasing size and capacity of culverts. Specifically identified are the following projects: <ul style="list-style-type: none">Install larger concrete box culvert on Pike Road to alleviate flooding.Chestnut and Corbin road areas will require engineered plan to correct and upgrade the drainage to prevent continued damage to the infrastructure. Bridge on Hoben Road in the Town of Oxford, will be replaced by County which may affect McDonough section.							
	See above	Flood, Severe Storm	Town Highway Department, Chenango County Soil/Water, NYSDEC	See above	Ongoing	Cost	-	The Town continues to work update culvert sizes as needed as part of daily operations of the Highway Department.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TMD-3 (Former TMD -3)	Control Construction of Beaver Dams	Flood	NYSDEC, Town of McDonough DPW	Control construction of Beaver Dams along Creek Rd., Strong Rd. Chestnut Rd, Loomis Rd and Shore Rd. By monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood	Ongoing	Cost	-	The Town continues to work with NYSDEC to control Beaver Dams.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				creating hazardous conditions.				
TMD-4 (Former TMD -4)	Consider non-structural flood hazard mitigation alternatives	Food Severe Storm, Heavy snow run-off	Town Council, FEMA, SEMO	Consider non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as repetitive loss, such as acquisition/relocation or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.	Complete	Cost	-	Discontinue as there are no repetitive loss properties within the Town.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TMD-5 (Former TMD -5)	Retrofit flood-prone roadways	Severe Storm	Town Highway Department, County Highway Department	Retrofit flood-prone roadways that are critical to infrastructure (Pike Road, Strong Road, Sherman-Bliven Road) by raising low areas in the road and increase size of culverts.	Ongoing	Cost	-	The Town continues to retrofit flood-prone roadways as needed as part of daily operations of the Highway Department.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TMD-6 (Former TMD-6, -7)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above		Chenango County, as supported by	See above		Cost	-	This is part of the Town’s daily operations.
						Level of Protection	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
		All Hazards	relevant local department leads		Ongoing Capability	Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of McDonough has not identified any mitigation projects or initiatives apart from those included in the in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of McDonough worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.14-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of McDonough would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.14-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.14-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. McDonough-001	Genegantslet Lake Dam	1, 2, 3, 4, 6, 7	Flood	Problem: The privately-owned Genegantslet Lake Dam is classified as a "high hazard" Class C Dam.	Yes	No	Within 5 years	Town of McDonough, NYSDEC, Genegantslet Lake Association	Low to conduct outreach	High	FEMA HHPD	High	SIP, LPR	PI, SP
				Solution: The Town of McDonough will conduct outreach to the dam owner about the condition of the dam and potential risks posed by a dam failure and support an inspection plan of the dam by an engineer in accordance with the existing EAP and NYSDEC Dam Safety guidelines. The Town will aid in the development of annual updated EAPs as needed.										
2021-T. McDonough-002	Lake Ludlow Club Dam	1, 2, 3, 4, 6, 7	Flood	Problem: The privately-owned Lake Ludlow Club Dam is classified as an "intermediate hazard" Class B Dam.	Yes	No	Within 5 years	Town of McDonough, NYSDEC, Genegantslet Lake Association	Low to conduct outreach	High	FEMA HHPD	High	SIP, LPR	PI, SP
				Solution: The Town of McDonough will conduct outreach to the dam owner about the condition of the dam and potential risks posed by a dam failure and support an inspection plan of the dam by an engineer in accordance with the existing EAP and NYSDEC Dam Safety guidelines. If significant risk is found, the Town will aid in the development of an updated EAP if necessary.										
2021-T. McDonough-003	Tree Maintenance	1, 3, 6, 7	All Hazards	Problem: Many residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events.	No	No	Less than 6 months	Town of McDonough	Low	High	Municipal Budget, FEMA HMA	High	LPR	PP
				Solution: The Town of McDonough will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are										



Table 9.14-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				nearby power lines as to reduce frequency of power outages.										

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.14-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. McDonough-001	Genegantslet Lake Dam	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High
2021-T. McDonough-002	Lake Ludlow Club Dam	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High
2021-T. McDonough-003	Tree Maintenance	1	1	1	1	0	0	1	0	0	1	1	1	1	0	11	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.14.7 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.14-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood	001, 002, 003	001, 002				003	001, 002		001, 002	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm	003					003				
Severe Winter Storm	003					003				
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.14.8 Staff and Local Stakeholder Involvement in Annex Development

The Town of McDonough followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Highway Department and the Supervisor's Office. The Highway Superintendent represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

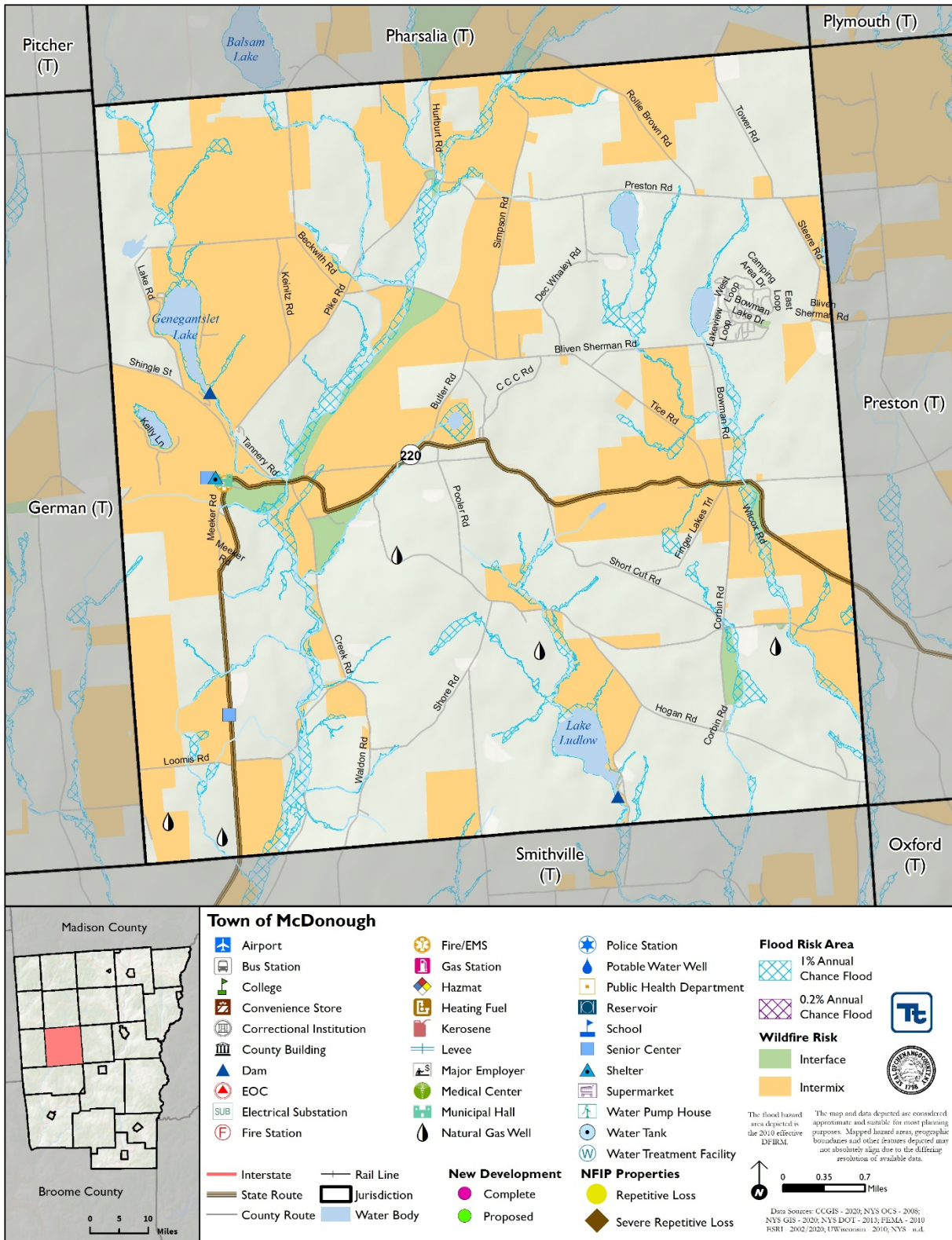
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.14.9 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of McDonough that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of McDonough has significant exposure. The map is illustrated below.



Figure 9.14-1. Town of McDonough Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	2021-T. McDonough-001		
Project Number:	Genegantslet Lake Dam		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	The privately-owned Genegantslet Lake Dam is classified as a "high hazard" Class C Dam.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of McDonough will conduct outreach to the dam owner about the condition of the dam and potential risks posed by a dam failure and support an inspection plan of the dam by an engineer in accordance with the existing EAP and NYSDEC Dam Safety guidelines. The Town will aid in the development of annual updated EAPs as needed.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	High, reduces risk for dam failure
Useful Life:	50 years	Goals Met:	1, 2, 3, 4, 7
Estimated Cost:	Low to conduct outreach	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	Within next 5 years	Potential Funding Sources:	FEMA HHPD
Responsible Organization:	Town of McDonough, NYSDEC, Genegantslet Lake Association	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Decommission Dam	N/A	Would flood neighborhood and displace large tax base for the Town
	Town Purchases dam and updates	N/A	Unnecessary, Town cannot afford to purchase this asset and the Lake Association is maintaining the Dam properly
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. McDonough-001	
Project Number:	Genegantslet Lake Dam	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protects neighborhood and buildings
Property Protection	1	Protects neighborhood and buildings
Cost-Effectiveness	1	
Technical	0	Town can conduct outreach and support project as needed
Political	0	
Legal	0	Town does not own Dam
Fiscal	1	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Reduces possibility of dam failure event
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Tree Maintenance		
Project Number:	2021-T. McDonough-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	Many residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of McDonough will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are nearby power lines as to reduce frequency of power outages.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year MRP wind event	Estimated Benefits (losses avoided):	High, reduces power outages
Useful Life:	99 years	Goals Met:	1, 3, 6, 7
Estimated Cost:	Low	Mitigation Action Type:	LPR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Ongoing
Estimated Time Required for Project Implementation:	Less than 6 months to being identifying	Potential Funding Sources:	Municipal Budget, FEMA HMA
Responsible Organization:	Town of McDonough	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Ground Power Lines	\$3 M+	Expensive, not cost-effective, will disrupt state and natural lands
	Remove all trees surround power lines	N/A	Not environmentally or ecologically sound, will not guarantee reduction in power outages
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Tree Maintenance	
Project Number:	2021-T. McDonough-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces probability of power outages caused by debris during hazards
Property Protection	1	Prevents property from falling trees
Cost-Effectiveness	1	
Technical	1	Town can support implementation
Political	1	
Legal	1	
Fiscal	1	
Environmental	0	Possible concerns with over-trimming, tree removal
Social	0	
Administrative	1	
Multi-Hazard	1	All Hazards, Severe Storms
Timeline	1	Ongoing
Agency Champion	0	
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



9.15 Town of New Berlin

This section presents the jurisdictional annex for the Town of New Berlin. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of New Berlin's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.15.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of New Berlin's hazard mitigation plan primary and alternate points of contact.

Table 9.15-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Robert Starr, Town Supervisor 30 North Main Street New Berlin, NY 13411 607-847-8909 ext. 1003 townofnewberlin@gmail.com	Daniel Neilsen, Highway Superintendent 30 North Main Street New Berlin, NY 13411 607-847-8909 ext. 1008 townofnewberlin@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St, Norwich, NY 13815 607-337-1795 stevenf@co.chenango.ny.us	

9.15.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 1,654.

The Town of New Berlin is a border town, located at the easterly side of Chenango County bordering Otsego County. The Town of New Berlin borders the towns of Norwich, North Norwich, Sherburne and Columbus, within Chenango County. NYS Route #8 passes North and South along the easterly border of the town and NYS Route #23 east and west.

The first settler arrived around 1790. The town of New Berlin was founded by a partition of the town of Norwich in 1807. In 1821 the town changed its name to "Lancaster" but returned to "New Berlin" the next year. In 1853, part of the town was lost to the construction of Sherburne. The town was a farming area since its creation. Over the past 30 years agriculture has declined and a trend towards a more rural residential area has slowly increased.

The Town of New Berlin is governed by an elected five member Town Board composed of a Town Supervisor, who also represents the town at the County Board of Supervisors, and four (4) Council members. This governing body will assume responsibility for adoption and implementation of this plan. The body is made up of appointed and elected persons. Highway Superintendent is appointed, Codes Officer is appointed, and Police Officers are appointed. South New Berlin Water Board Members are appointed, Planning Board members are appointed. Town Clerk/Tax Collector is elected, Tax Assessor is appointed, and the Deputy Clerk is appointed.



9.15.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.15-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.15-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.15-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	-	0	-	0	-	0	-	0	-
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
South New Berlin Water District	Residential		100+ connection, About 400 residents		Hamlet of South New Berlin		Wildfire Intermix Area		Upgrade of water mains, towers, wells, and chlorination station. Complete	
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.15.4 Capability Assessment

The Town of New Berlin performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.



For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.15.4). The Town of New Berlin identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of New Berlin and where hazard mitigation has been integrated.

Table 9.15-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229) – Chapter 87, Fire Prevention and Building Code, Article I, Adopted 7-10-2006	Local and State	Code Enforcement Officer appointed annually by Town Council	Yes	Yes	NA
<p>Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.</p> <ul style="list-style-type: none">Chapter 87, Fire Prevention and Building Code. Article I, Adopted 7-10-2006. This article provides for the administration and enforcement of the New York State Uniform Fire Prevention and Building Code (the Uniform Code) and the State Energy Conservation Construction Code (the Energy Code) in this Town. The Code Enforcement Officer shall administer and enforce all the provisions of the Uniform Code, the Energy Code and this article. Except as otherwise provided in Subsection B of this section, a building permit shall be required for any work which must conform to the Uniform Code and/or the Energy Code.A certificate of occupancy/certificate of compliance shall be required for any work which is the subject of a building permit and for all structures, buildings, or portions thereof which are converted from one use or occupancy classification or subclassification to another. Where applicable, the following documents, shall be provided to the Code Enforcement Officer prior to the issuance of the certificate of occupancy/certificate of compliance:<ul style="list-style-type: none">(1) A written statement of structural observations and/or a final report of special inspections; and(2) Flood hazard certifications.							
Zoning Code	No	-	Local	-	No	-	-
<p>Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan”¹¹ or “in accordance with a comprehensive plan.”¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level</p>							
Subdivision Regulations	Yes	Local law Book maintained - Chapter 135, Subdivision of Land, approved by the Town	Local	Local Planning Board	No	Yes	NA



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
		Board, 2-5-1990.					
<p>Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).</p> <ul style="list-style-type: none"> Chapter 135, Subdivision of Land. The "Town of New Berlin Land Subdivision Regulations," have been adopted by the Planning Board on January 8, 1990, and approved by the Town Board on February 5, 1990, as amended. It is declared to be the policy of the Planning Board to consider land subdivision plats as part of a plan for the orderly, efficient and economical development of the Town. These regulations are adopted for the following purposes: <ul style="list-style-type: none"> A. To protect and provide for the public health, safety and general welfare of the municipality. B. To guide the future growth and development of the municipality, in accordance with the Comprehensive Plan. The Planning Board shall review the location of the proposed subdivision for the presence of any adverse natural considerations limiting development on the site as indicated by the Natural Resource Composite Maps on file in the Town offices. If the site falls into areas on the soils map denoted as having "moderate," "severe" or "very severe" limitation or within flood hazard areas or areas of unique hydrologic or natural habitat areas (including wetlands). The Planning Board may require that design techniques such as clustering be used to avoid development in these critical resource areas. Land to be subdivided shall be of such character that it can be used safely for building purposes without danger to health or peril from fire, flood or other menace. The Planning Board shall, wherever possible, establish the preservation of all natural features which add value to residential developments and to the community. Land subject to serious or regular flooding shall not be subdivided for residential occupancy or for such other uses as may increase danger to life or property or aggravate the flood hazard, but such land may be used for such uses, subject to any zoning regulations, if any, or in such a way, that the flood danger to this property and other upstream or downstream properties will not be increased and periodic or occasional inundation will not be a substantial threat to life or property. The provisions of this section shall apply to all land falling within the one-hundred-year flood limit as shown on maps prepared and amended by the Federal Emergency Management Agency. Development of steep slope, over 12%, sites will be conditionally acceptable only if there is no prudent or feasible alternative site and erosion and sedimentation control measures are incorporated in the design. Coastal development shall preserve, to the maximum extent practicable, existing vegetation within a development site. This includes, where necessary, planting of appropriate native coastal species. 							
Stormwater Management Regulations	Yes	Subdivision Regulations	Local		Yes		
<p>Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department</p>							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	NA	NA
<p>Comment: In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.</p>							
Growth Management Regulation	No	-	Local	-	No	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: In New York State, virtually all land use regulation, which is the primary tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a – Chapter 121, Site Plan Review, 2000	Local	Local Planning Board	No	Yes	NA
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a). The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc. <ul style="list-style-type: none"> Chapter 121, SITE PLAN REVIEW, The Town Board of the Town of New Berlin, Chenango County, New York, does hereby ordain and enact the Town of New Berlin Site Plan Review Law pursuant to the authority and provisions of § 10 of the Municipal Home Rule Law and § 274-a of the Town Law. It is the intent of this chapter to promote the health, safety and general welfare of the town. It is further the intent of this chapter to ensure that optimum overall conservation, protection, preservation, development and use of the natural and man-related resources of the town by regulating land use activity within the town through review and approval of site plans. The Planning Board's review of the site plan shall include, as appropriate, but not limited to, the following general considerations: Adequacy of stormwater and drainage facilities; Adequacy of water supply and sewage disposal facilities; Adequacy, type and arrangement of trees, shrubs and other landscaping constituting a visual and/or noise buffer between the applicant's and adjoining lands, including the maximum retention of existing vegetation; and special attention to the adequacy and impact of structures, roadways and landscaping in areas with susceptibility to ponding, flooding and/or erosion.. All construction on any shoreline lot shall be carried out in such manner as to minimize interference with the natural course of such waterway, to avoid erosion of the shoreline, to minimize increased runoff of ground and surface water into the waterway, to remove only that vegetation which is necessary to the accomplishment of the project and to generally maintain the existing aesthetic and ecological character of the shoreline. 							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	?	Yes	NA	NA
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Adopted 4/1987, Amended 9/13/2010 – Chapter 91. Flood Damage Prevention, Article I	Local, State, Federal	Administered by County Code Official under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	NA
Comment: Adopted 4/1987, Amended 9/13/2010. A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Chapter 91, FLOOD DAMAGE PREVENTION, Article I, 2010. The Town Board of the Town of New Berlin finds that the potential and/ or actual damages from flooding and erosion may be a problem to the residents of the Town of New Berlin and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program The areas of special flood hazard for the Town of New Berlin, Community Number 361303, are identified and defined on the documents prepared by the Federal Emergency Management Agency, including the applicable Flood Insurance Rate Map Panel Numbers, whose effective date is November 26, 2010. 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<ul style="list-style-type: none"> The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	?	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	Town of New Berlin Comprehensive Emergency Management Plan, July 2008	Local	Local OEM	Yes	Yes	-
Comment: The Town of New Berlin Comprehensive Emergency Management Plan incorporates Hazard Mitigation, an analysis of potential hazards including flood, dam failure, severe winter storm, power failure, tornadoes, transportation accidents, drought, wildfire, terrorism, earthquake, and extreme temperatures, risk reduction policies and emergency response capabilities; response organization and the identification of an Emergency Management Coordinator, emergency operations and notifications, restoring public services; and recovery including damage assessment, planning for recovery and reconstruction.							
Climate Adaptation	No	-	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	Yes	Town of New Berlin Comprehensive Emergency Management Plan, July 2008	Local	Town Supervisor	No	Yes	-
Comment: The Town of New Berlin Comprehensive Emergency Management Plan incorporates Hazard Mitigation, an analysis of potential hazards including flood, dam failure, severe winter storm, power failure, tornadoes, transportation accidents, drought, wildfire, terrorism, earthquake, and extreme temperatures, risk reduction policies and emergency response capabilities; response organization and the identification of an Emergency Management Coordinator, emergency operations and notifications, restoring public services; and recovery including damage assessment, planning for recovery and reconstruction.							
Disaster Reconstruction Ordinance	Yes	-	Local	-	No	Yes	-
Comment: The Town of New Berlin Comprehensive Emergency Management Plan incorporates Hazard Mitigation, an analysis of potential hazards including flood, dam failure, severe winter storm, power failure, tornadoes, transportation accidents, drought, wildfire, terrorism, earthquake, and extreme temperatures, risk reduction policies and emergency response capabilities; response organization and the identification of an Emergency Management Coordinator, emergency operations and notifications, restoring public services; and recovery including damage assessment, planning for recovery and reconstruction.							
Other Applicable Codes, Ordinances, & Requirements	Yes	Chapter 150, Water, Adopted 7-18-1994.	Local	Local Water Board	No	Yes	NA
Comment: Local Code book is maintained on a daily basis and online							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<ul style="list-style-type: none"> Chapter 150, Water - South New Berlin Water District Rules and Regulations, Adopted 7-18-1994. No person shall tap any district main or water pipe. All tapping must be done by water district personnel or authorized personnel and not without written permission of the Water Board. In time of drought or scarcity of water that supplies the water district, sprinkling will not be allowed. Fixed fountains or sprays, also, will not be allowed during times of drought. Any person violating any of the provisions of this rule and Article shall be liable to a penalty listed in the penalty schedule for each offense, and in addition, the district may cut off the supply of water of said offender. Notice of water scarcity will be made by notification of said scarcity to the radio media and/or official newspaper publication of said notice or personal notification to user. No poisonous or harmful substances shall be stored within 100 feet of any South New Berlin Water District water supply reservoir or well. <p>Other Codes: Farming, Chapter 84, 1990. By the adoption of the chapter, the Town Board of the Town of New Berlin declares its intent to maintain the desirable rural character of the Town of New Berlin, to permit the continuation of the business of farming as it is now carried out throughout the Town of New Berlin, including the various agricultural districts within the town.</p>							
Planning Documents							
Comprehensive Plan	Yes	Adopted 10/2007	Local	Town Planning Board	No		
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	Yes	General Municipal Law Section 99-g.	Local	?	No	No	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	-	Local	NYSDEC permit and Federal Agencies	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local	-	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	NA	NA
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No						
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	Comprehensive Emergency Management Plan, July, 2008.	Local	Town of New Berlin Supervisor	Yes	Yes	NA
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC). <ul style="list-style-type: none"> Town of Berlin, Comprehensive Emergency Management Plan, July, 2008. 1. This Plan sets forth the basic requirements for managing emergencies in the Town. The objectives of the Plan are: <ol style="list-style-type: none"> To identify, assess and prioritize vulnerabilities to emergencies or disasters and the resources available to prevent or mitigate, respond to, and recover from them. To outline short, medium and long range measures to improve the Town's capability to manage hazards. To provide that the Town government, in concert with County government, will take appropriate actions to prevent or mitigate effects of hazards and be prepared to respond to and recover from them when an emergency or disaster occurs. To provide for the efficient utilization of all available resources during an emergency. To provide for the utilization and coordination of County, State, and Federal programs to assist disaster victims, and to prioritize the response to the needs of the elderly, disabled, low income, and other groups which may be inordinately affected. Provide for the utilization and coordination of state and federal programs for recovery from a disaster with attention to the development of mitigative programs. Town Hazard Mitigation Planning; The Town Highway Superintendent is responsible for coordinating with the County Hazard Mitigation Coordinator in reducing hazards potentially affecting the Town of New Berlin; and All Town agencies will participate in risk reduction activities. Significant potential hazards to be identified and analyzed include natural, technological, and human-caused hazards. This hazard analysis: <ol style="list-style-type: none"> provides a basic method for analyzing and ranking the identified hazards, including identification of geographic areas and populations at risk to specific hazards; and establishes priorities for planning for those hazards receiving a high ranking of significance. Town agencies will coordinate with Chenango County in promoting policies, programs and activities to reduce hazard risks in their area of responsibility. 							
Threat & Hazard Identification &	No	-	Local	-	Yes	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Risk Assessment (THIRA)							
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	Yes	Town of New Berlin Comprehensive Emergency Management Plan, July 2008	Local	Town Supervisor	No	Yes	-
Comment: The Town of New Berlin Comprehensive Emergency Management Plan incorporates Hazard Mitigation, an analysis of potential hazards including flood, dam failure, severe winter storm, power failure, tornadoes, transportation accidents, drought, wildfire, terrorism, earthquake, and extreme temperatures, risk reduction policies and emergency response capabilities; response organization and the identification of an Emergency Management Coordinator, emergency operations and notifications, restoring public services; and recovery including damage assessment, planning for recovery and reconstruction.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes or No	-	Local	New Berlin Fire District/Chenango County EMS	No		
Comment: Emergency Response Plan. New Berlin Fire District/Chenango County EMS							

Table 9.15-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Planning Board
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of New Berlin.



Table 9.15-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Not Indicated	-
Mutual aid agreements	Not Indicated	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	Yes	Chenango County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	MOU- County NFIP Floodplain Administrator
Surveyor(s)	Yes	County Highway Dept- if available manpower
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Fire Department
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other		

Fiscal Capability

The table below summarizes financial resources available to the Town of New Berlin.

Table 9.15-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes available to residents in past
Capital improvements 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	No
Stormwater utility fee	No



Financial Resources	Accessible or Eligible to Use (Yes/No)
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	Yes

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of New Berlin.

Table 9.15-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes
Personnel skilled or trained in website development?	Yes
Hazard mitigation information available on your website; if yes, describe	Yes
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach and Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of New Berlin.

Table 9.15-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-



Note:

N/A Not applicable
 NP Not participating
 - Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.15-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use
 Medium Capacity may exist; but is not used or could use some improvement
 Low Capacity does not exist or could use substantial improvement
 Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of New Berlin.

Table 9.15-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of New Berlin	6	9	\$62,944	2	-	4

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss



Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Guilford has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of New Berlin has completed Community Assistance Visits (CAV), with the most recent visit completed in 2002.

Regulatory

The Town of New Berlin Flood Damage Prevention Ordinance (FDPO) was last updated on September 13, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

- **Infrastructure Protection/Floodplain Management:** Increase the size and number of culverts to alleviate flooding problem in area of NYSDEC Stream (#32), located at the intersection of NYS Rte. #8 and NYS Rte. #80, also known as Five Corners. Work in a cooperative effort with NYSDEC to control the flooding by cleaning gravel and debris, carried downstream by storm water. Prevention and maintenance will maintain a good flow.
- **Infrastructure Protection/Floodplain Management:** Stormwater Management of all drainage, creeks and streams by increasing the size of culvert pipes to increase the flow of run-off, especially in flood prone areas in the Town of New Berlin.
- **Infrastructure Protection/Floodplain Management:** Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions.
- **Infrastructure Protection/Floodplain Management:** Control flooding along West Brook Stream by moving gravel bars, thereby improving water flow and the condition of the banks



- **Infrastructure Protection/Floodplain Management:** Retrofit flood-prone roadways that are critical to infrastructure by increasing culvert sizes and raising the low areas in the road, specifically the following roads: Bida, Humphrey, West Brook, New Turnpike, Buttermilk Falls, Red Mill, Warner, Brooker, Pat-Farley, Holmesville Hill, Dilly-Hill and Martin.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

NY-80/County Road 29 going east/west; and NY-8/NY-80 going north/south.

Sheltering

The New Berlin Village Library and Unadilla Valley Central School have been identified as shelter locations by the Red Cross National Shelter System (NSS).

Temporary Housing

The Town of New Berlin has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of New Berlin did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.15.5 Hazard Event History Specific to the Town of New Berlin

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of New Berlin's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.15-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.15-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
July 15, 2016	Thunderstorm Wind	No	A thunderstorm moved across the region and became severe. This thunderstorm resulted in multiple trees being knocked over in the New Berlin area near state highway 8, along Turnpike Road.	Property damages as a result of the storm were estimated at \$5,000.



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 13, 2016	Thunderstorm Wind	No	A thunderstorm moved across the region and became severe. This thunderstorm resulted in numerous trees being knocked over across the county.	Property damages as a result of the storm were estimated at \$10,000.
May 1, 2017	Thunderstorm Wind	No	A thunderstorm moved across the region and became severe. This thunderstorm produced severe winds and knocked trees over on Shactown mountain road.	Property damages as a result of the storm were estimated at \$3,000.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.15.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of New Berlin's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

**Table 9.15-12. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Water Tank	Potable Water Facility	Yes	Yes	2021-T. New Berlin-001
Wastewater Treatment Facility	Wastewater Facility	No	Yes	-

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of New Berlin. The Town of New Berlin has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the municipality indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.15-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Medium	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- None identified

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Floods from Unadilla River

9.15.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.



Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.15-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
TNB-1 (Former TNB-1)	Increase the size and number of culverts to alleviate flooding	Flood	NYSDEC, Chenango County Soil/Water	Increase the size and number of culverts to alleviate flooding problem in area of NYSDEC Stream (#32), located at the intersection of NYS Rte. #8 and NYS Rte. #80, also known as Five Corners. Work in a cooperative effort with NYSDEC to control the flooding by cleaning gravel and debris, carried downstream by storm water. Prevention and maintenance will maintain a good flow.	Complete	Cost	-	The Town continues to coordinate with the NYSDEC to update NYSDOT roads and culverts.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TNB-2 (Former TNB-2)	Stormwater management	Severe Storms, Severe Winter Weather	Town of New Berlin Highway Department, Chenango County Soil/Water, NYSDEC	Stormwater Management of all drainage, creeks and streams by increasing the size of culvert pipes to increase the flow of run-off, especially in flood prone areas in the Town of New Berlin.	Ongoing Capability	Cost	-	This is part of the daily operations of the New Berlin Highway Department.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TNB-3 (Former TNB-3)	Control Construction of Beaver Dams	Flood, Severe Storm	NYSDEC, Town of New Berlin Highway Department	Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions.	Ongoing Capability	Cost	-	This is part of the daily operations of the New Berlin Highway Department.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
TNB-4 (Former TNB-4)	Control flooding along West Brook Stream	Flood, Severe Storm	Town of New Berlin Highway Department, Chenango County Highway	Control flooding along West Brook Stream by moving gravel bars, thereby improving water flow and the condition of the banks.	No Progress	Level of Protection	-	The Town did not provide a status update for flooding along West Brook Stream.
						Damages Avoided; Evidence of Success	-	
TNB-5 (Former TNB-5)	Retrofit flood-prone roadways	Flood, Severe Storm	Town of New Berlin, Chenango County Highway Department	Retrofit flood-prone roadways that are critical to infrastructure by increasing culvert sizes and raising the low areas in the road, specifically the following roads: Bida, Humphrey, West Brook, New Turnpike, Buttermilk Falls, Red Mill, Warner, Brooker, Pat-Farley, Holmesville Hill, Dilly-Hill and Martin.	Ongoing Capability	Level of Protection	-	This is part of the daily operations of the New Berlin Highway Department.
						Damages Avoided; Evidence of Success	-	
TNB-6 (Former TNB-6, -7)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification. Public education and awareness program for floodplain residents. Updates to NFIP floodplain mapping. Promotion of "Firewise" programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							This is part of the daily operations of the Town of New Berlin.
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of New Berlin has not identified any mitigation projects or initiatives apart from those included in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of New Berlin worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.15-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of New Berlin would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.15-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.15-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. New Berlin-001	Water Tank Relocation	1, 2, 3, 5	Flood	Problem: There is a Water Tank located within the 1% SFHA. Solution: The Town of New Berlin will identify a location to relocate the water tank outside of the SFHA to ensure that this critical facility is not impacted by future flooding events.	Yes ●	No	1 year	Town of New Berlin	High	High	FEMA BRIC, HMA	High	SIP	SP, ES
2021-T. New Berlin-002	Tree Maintenance	1, 3, 6, 7	Severe Storm, Severe Winter Storm, Flood	Problem: Many residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events. Solution: The Town of New Berlin will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are nearby power lines as to reduce frequency of power outages.	No	No	Less than 6 months	Town of New Berlin	Low	High	Municipal Budget, FEMA HMA	High	LPR	PP
2021-T. New Berlin-003	Mill Brook Site 1 & 2 Dam Outreach	1, 2, 3, 4, 5, 7	Flood	Problem: Chenango County owns the Mill Brook Site 1 Dam, while the Town of New Berlin owns the Mill Brook Site 2 Dam. Both dams are located within the Town of New Berlin and are classified as a "high hazard" Class C dams. Solution: The Town will conduct (for Dam 2) and support (for Dam 1) the County in annual EAP updates and inspections by an engineer and NYSDEC Dam Safety. If increased significant risk to the downstream areas is found, the Town will work with engineers, Chenango County, and NYSDEC Dam Safety to develop a plan to update and improve the conditions of the dam.	Yes	No	Short	Town of New Berlin	Low – Medium	High	Municipal Budget, HHPD	High	EAP	PP, PR



Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.15-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. New Berlin-001	Water Tank Relocation	1	1	1	1	0	1	0	1	1	1	0	1	0	0	9	High
2021-T. New Berlin-002	Tree Maintenance	1	1	1	1	1	1	1	0	0	1	1	1	0	1	11	High
2021-T. New Berlin-003	Mill Brook Site 1 & 2 Dam Outreach	1	1	1	1	1	1	1	1	1	1	0	1	0	0	10	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.15.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.15-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood	002	001		003	003	002, 003			001	001
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm	002					002				
Severe Winter Storm	002					002				
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.15.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of New Berlin followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Town Board and Highway Department. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

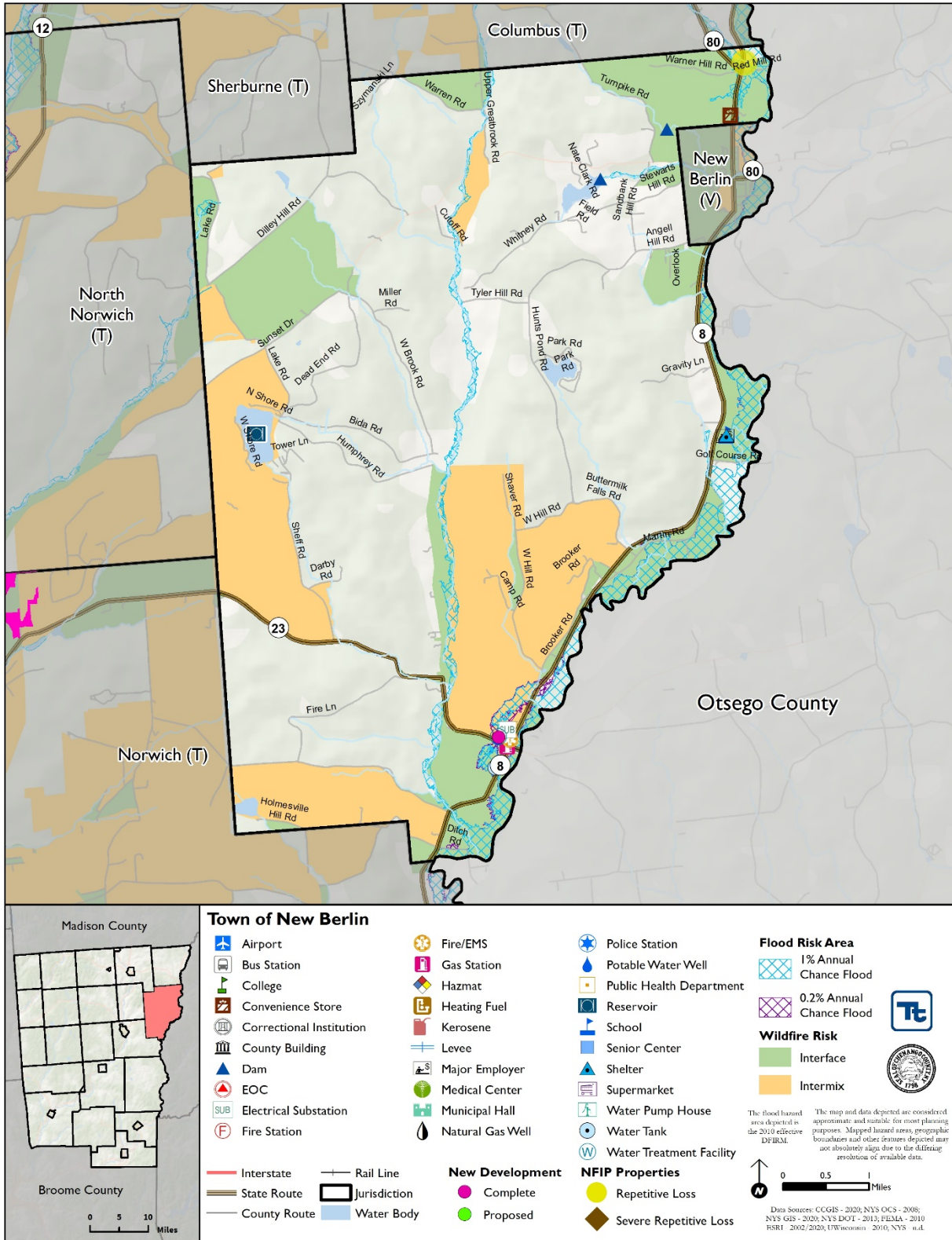
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.15.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of New Berlin that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of New Berlin has significant exposure. The map is illustrated below.



Figure 9.15-1. Town of New Berlin Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	2021-T. New Berlin-001		
Project Number:	Water Tank Relocation		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	There is a Water Tank located within the 1% SFHA.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of New Berlin will identify a location to relocate the water tank outside of the SFHA to ensure that this critical facility is not impacted by future flooding events.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year floodplain	Estimated Benefits (losses avoided):	High, ensures safe drinking water
Useful Life:	99 years	Goals Met:	1, 2, 3, 5
Estimated Cost:	High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	1-3 years	Potential Funding Sources:	FEMA BRIC, HMA
Responsible Organization:	Town of New Berlin	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate water tank	Medium	Would not eliminate flood risk, not cost effective
	Decommission and build a new water tank outside of floodplain	High	Not cost effective, current tank has not sustained structural damage and can be relocated
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. New Berlin-001	
Project Number:	Water Tank Relocation	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures safe drinking water
Property Protection	1	Eliminates flood risk to the facility
Cost-Effectiveness	1	Cost effective for eliminating risk
Technical	1	Town can support project and relocation
Political	0	
Legal	1	Town has jurisdiction
Fiscal	0	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	
Timeline	1	Can be completed within scope of HMP
Agency Champion	0	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Tree Maintenance		
Project Number:	2021-T. New Berlin-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	Many residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of New Berlin will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are nearby power lines as to reduce frequency of power outages.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year MRP wind event	Estimated Benefits (losses avoided):	High, reduces power outages
Useful Life:	99 years	Goals Met:	1, 3, 6, 7
Estimated Cost:	Low	Mitigation Action Type:	LPR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Ongoing
Estimated Time Required for Project Implementation:	Less than 6 months to being identifying	Potential Funding Sources:	Municipal Budget, FEMA HMA
Responsible Organization:	Town of New Berlin	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Ground Power Lines	\$3 M+	Expensive, not cost-effective, will disrupt state and natural lands
	Remove all trees surround power lines	N/A	Not environmentally or ecologically sound, will not guarantee reduction in power outages
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Tree Maintenance	
Project Number:	2021-T. New Berlin-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces probability of power outages caused by debris during hazards
Property Protection	1	Prevents property from falling trees
Cost-Effectiveness	1	
Technical	1	Town can support implementation
Political	1	
Legal	1	
Fiscal	1	
Environmental	0	Possible concerns with over-trimming, tree removal
Social	0	
Administrative	1	
Multi-Hazard	1	All Hazards, Severe Storms
Timeline	1	Ongoing
Agency Champion	0	
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



9.16 Village of New Berlin

This section presents the jurisdictional annex for the Village of New Berlin. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Village participated in the planning process; an assessment of the Village of New Berlin's risk and vulnerability; the different capabilities utilized in the Village; and an action plan that will be implemented to achieve a more resilient community.

9.16.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Village of New Berlin's hazard mitigation plan primary and alternate points of contact.

Table 9.16-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Peter Lennon, Mayor 64 Main Street, New Berlin, NY 757-212-8166 mgpeterlennon@aol.com	Carol Riley, Trustee 607-847-6486 coriley40@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Code Enforcement Official 5 Court Street, Norwich, NY 13815 607-337-1795 SteveF@co.chenango.ny.us	

9.16.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Village was 1,028.

The Village is located on St. Rt.8 and St. Rt.80, 8 miles south of the Madison County line and on the east side of Chenango County, along the Unadilla River bordering Otsego County (42 37' 26" N, 75 20' 0" W).

The Hamlet of New Berlin was settled in 1790. It was incorporated into a Village in 1816.

The Village has a Mayor and four Trustees. This governing body will assume responsibility for adoption and implementation of this plan. In addition, it has one clerk and four DPW employees.

9.16.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.16-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.16-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

**Table 9.16-2. Recent and Expected Future Development**

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	-	0	-	0	-	0	-	0	-
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.16.4 Capability Assessment

The Village of New Berlin performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.16.4). The Village of New Berlin identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of New Berlin and where hazard mitigation has been integrated.



Table 9.16-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Chenango County Enforcement	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	Yes	Established 9/1990	Local	Local Zoning Board of Adjustment	No	Yes	N/A
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Not Indicated	Local	Local Planning Board	No	No	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	Yes	Title 6, Ch. X, 17-7,8,70	Local	Not Indicated	Yes	No	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	No	-	Local	-	-	-	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	Local Law #7 of 1990	Local	Local Planning Board	No	No	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	?	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Adopted 4/1987, Amended 10/12/2010 Local law No. 1, Flood Damage Prevention	Local, State, Federal	Administered by County Code Official Under an MOU with Village	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
<p>Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> Local Law No. 1 of the year 2010. Flood Damage Prevention, enacted by the Village Board of Trustees. A local law for Flood Damage Prevention as authorized by the New York State Constitution. Article IX, Section 2, and Environmental Conservation Law, Article 36. The Board of Trustees of the Village of New Berlin finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Village of New Berlin and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ul style="list-style-type: none"> (1)regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program The areas of special flood hazard for the Village of New Berlin, Community Number 360160, are identified and defined on the following documents prepared by the Federal Emergency Management Agency: (1) Flood Insurance Rate Map Panel Numbers: 36017C0139E, 36017C0140E, 36017C0277E whose effective date is, November 26, 2010. The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	Not Indicated	Yes	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	-	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Other Applicable Codes, Ordinances, & Requirements	No	-	-	-	-	-	-
Comment:							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	Zoning Regulations	Local	Not Indicated	No	No	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	No	-	Local	-	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other (tourism, business dev, etc.)	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	No	-	Local	-	Yes	-	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHS has several methodological concerns with the THIRA process and has							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	-	Local		No		
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

Table 9.16-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	No
Permits are tracked by hazard area. For example, floodplain development permits.	No
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of New Berlin.

Table 9.16-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-



Resources	Available? (Yes or No)	Department/ Agency/Position
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	Chenango County
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	Chenango County Highway Dept. and Chenango County building codes
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contracted
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning and Development
Scientist familiar with natural hazards	Yes	Chenango county Soil and Water
NFIP Floodplain Administrator (FPA)	Yes	MOU with Chenango County NFIP Floodplain Administrator
Surveyor(s)	Yes	Contracted
Emergency Manager	Yes	Chenango County Emergency Management Office
Grant writer(s)	Yes	County Planning & Development – Cornell co-operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Village of New Berlin.

Table 9.16-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	No
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	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of New Berlin.



Table 9.16-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Village Clerk
Personnel skilled or trained in website development?	Yes
Hazard mitigation information available on your website; if yes, describe	Yes
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Yes, Website and Newsletter
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Not Indicated
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Village of New Berlin.

Table 9.16-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable
NP Not participating
- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

**Table 9.16-9. Adaptive Capacity**

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of New Berlin.

Table 9.16-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Village of New Berlin	3	5	\$32,196	0	-	1

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County.

The County Planning Board preforms NYS 239 Reviews for required building permits.



Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Village of New Berlin has completed Community Assistance Visits (CAV), with the most recent visit completed in 2002.

Regulatory

The Village of New Berlin Flood Damage Prevention Ordinance (FDPO) was last updated on October 12, 2010. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

Infrastructure Protection: The Village will update/replace storm drains & catch basins within the Village to increase capacity of the drainage system.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

NY-80/County Road 29 going east/west; and NY-8/NY-80 going north/south have been used for evacuations in the past. However, Evacuation routes are specific to hazard event and routes will vary according to the location and type of event. Residents should seek up-to-date information from the Chenango County Office of Emergency Management.

Sheltering

The New Berlin Village Library and Unadilla Valley Central School have been identified as shelter locations by the Red Cross National Shelter System (NSS).

Temporary Housing

The Village of New Berlin has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Village will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Village of New Berlin did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Village can utilize this analysis to identify potential locations.

9.16.5 Hazard Event History Specific to the Village of New Berlin

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology



of events that have affected the County and its municipalities. The Village of New Berlin's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.16-11 provides details regarding municipal-specific loss and damages the Village experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.16-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
July 15, 2016	Thunderstorm Wind	No	A thunderstorm moved across the region and became severe. This thunderstorm resulted in multiple trees being knocked over in the New Berlin area near state highway 8, along Turnpike Road.	Property damages as a result of the storm were estimated at \$5,000.
August 13, 2016	Thunderstorm Wind	No	A thunderstorm moved across the region and became severe. This thunderstorm resulted in numerous trees being knocked over across the county.	Property damages as a result of the storm were estimated at \$10,000.
May 1, 2017	Thunderstorm Wind	No	A thunderstorm moved across the region and became severe. This thunderstorm produced severe winds and knocked trees over on Shacktown mountain road.	Property damages as a result of the storm were estimated at \$3,000.

Notes:

EM *Emergency Declaration (FEMA)*

FEMA *Federal Emergency Management Agency*

DR *Major Disaster Declaration (FEMA)*

N/A *Not applicable*

9.16.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Village of New Berlin's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to



specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.16-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
New Berlin Wastewater Treatment Facility	Wastewater Facility	Yes	Yes	2021-V. New Berlin-002
Potable Water Well	Potable Water Facility	Yes	Yes	2021-V. New Berlin-002
New Berlin Electrical Substation	Utility/Electric Power Facilities	No	Yes	-

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Village of New Berlin. The Village of New Berlin has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Village of New Berlin indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.16-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Low	Medium	Medium	High	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality



Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The reinforcement walls along Millbrook Creek were undermined in 2011 flooding. This created extensive damage.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Emergency Plans within the Town and Village of New Berlin are not promoted or communicated to residents.

9.16.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.16-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
VNB-1 (Former VNB-1)	Updated and replace storm drains and catch basins	Severe Storm, Flood	DPW	Update/replace storm drains & catch basins within the village to increase capacity of the drainage system. Working with NYSDOT on State Hwy 8 drainage project.	In Progress	Cost	-	See Mitigation Action #001 for more information
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VNB-2 (Former VNB-2)	Millbrook Creek Embankment Containment Project	Flood, Severe Storm	US Army Corps of Engineers, Chenango County Soil/Water	A concrete sluice way from NYS Rt. 8 east to the Unadilla River. Permanent structures not in place. At this time temporarily using large concrete barriers.	In Progress	Cost	-	See Mitigation Action #001 for more information
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VNB-3 (Former VNB-3, 4)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification. Public education and awareness program for floodplain residents. Updates to NFIP floodplain mapping. Promotion of "Firewise" programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							This is part of the Village/s daily operations.
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	
						Level of Protection		
						Damages Avoided; Evidence of Success		



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of New Berlin has not identified any mitigation projects or initiatives apart from those included in the in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of New Berlin worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.16-15 summarizes the comprehensive-range of specific mitigation initiatives the Village of New Berlin would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.16-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.16-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-V. New Berlin-001	Millbrook Creek Embankment Containment Project	1, 2, 3, 4	Flood, Severe Storm, Severe Winter Storm	<p>Problem: Areas near NY-80 experience frequent flooding and there are concerns about erosion and overtopping of the Unadilla River.</p> <p>Solution: The Village will work with the NYSDOT and NYSDEC to resolve embankment and flooding concerns in the area. Proposed concrete sluice way along the Unadilla River as well as updating storm drains and catch basins to reduce flooding and water flow is being considered. The Village will work with the State and engineers to resolve the issue and increase the drainage capacity.</p>	No	No	1-2 years	New Berlin DPW	Medium-High	High, reduces flooding concerns	FEMA BRIC, HMA, NYSDOT, Bridge NY	High	SIP	SP
2021-V. New Berlin-002	Water System Upgrades	1, 2, 3, 4, 6, 7	Flood, Severe Storm, Severe Winter Storm	<p>Problem: The old water mains and well house are outdated and have experienced damages due to being located within the 1% SFHA.</p> <p>Solution: The Town DPW and Water Department will upgrade and replace the water mains and water lines throughout the Village. They are currently undersized for the capacity needed and are more than 100 years old and have experienced shutdowns and issues in the past. An upgraded water system will ensure continual water supply for Village residents.</p>	Yes 💧	No	Short, within scope of HMP	New Berlin DPW, Water Department	High	High, ensures safe and clean drinking water	FEMA BRIC, HMA, Municipal Budget support	High	LPR, SIP	PP, SP, ES

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV Community Assistance Visit
 CRS Community Rating System
 DPW Department of Public Works

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program
 HMGP Hazard Mitigation Grant Program
 PDM Pre-Disaster Mitigation Grant Program

Timeline:


The time required for completion of the project upon implementation

Cost:



EHP	Environmental Planning and Historic Preservation	BRIC	Building Resilient Infrastructure and Communities	The estimated cost for implementation.
FEMA	Federal Emergency Management Agency			<u>Benefits:</u>
FPA	Floodplain Administrator			A description of the estimated benefits, either quantitative and/or qualitative.
HMA	Hazard Mitigation Assistance			
N/A	Not applicable			
NFIP	National Flood Insurance Program			
OEM	Office of Emergency Management			

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.16-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-V. New Berlin-001	Millbrook Creek Embankment Containment Project	1	1	1	0	0	1	0	1	1	1	1	1	1	1	11	High
2021-V. New Berlin-002	Water System Upgrades	1	1	1	0	1	1	0	1	1	1	1	1	1	1	12	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.16.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.16-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood	002	001, 002				002			001, 002	002
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm	002	001, 002				002			001, 002	002
Severe Winter Storm	002	001, 002				002			001, 002	002
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.16.9 Staff and Local Stakeholder Involvement in Annex Development

The Village of New Berlin followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Village departments, including: the Village Board of Trustees, and Department of Public Works. The Mayor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

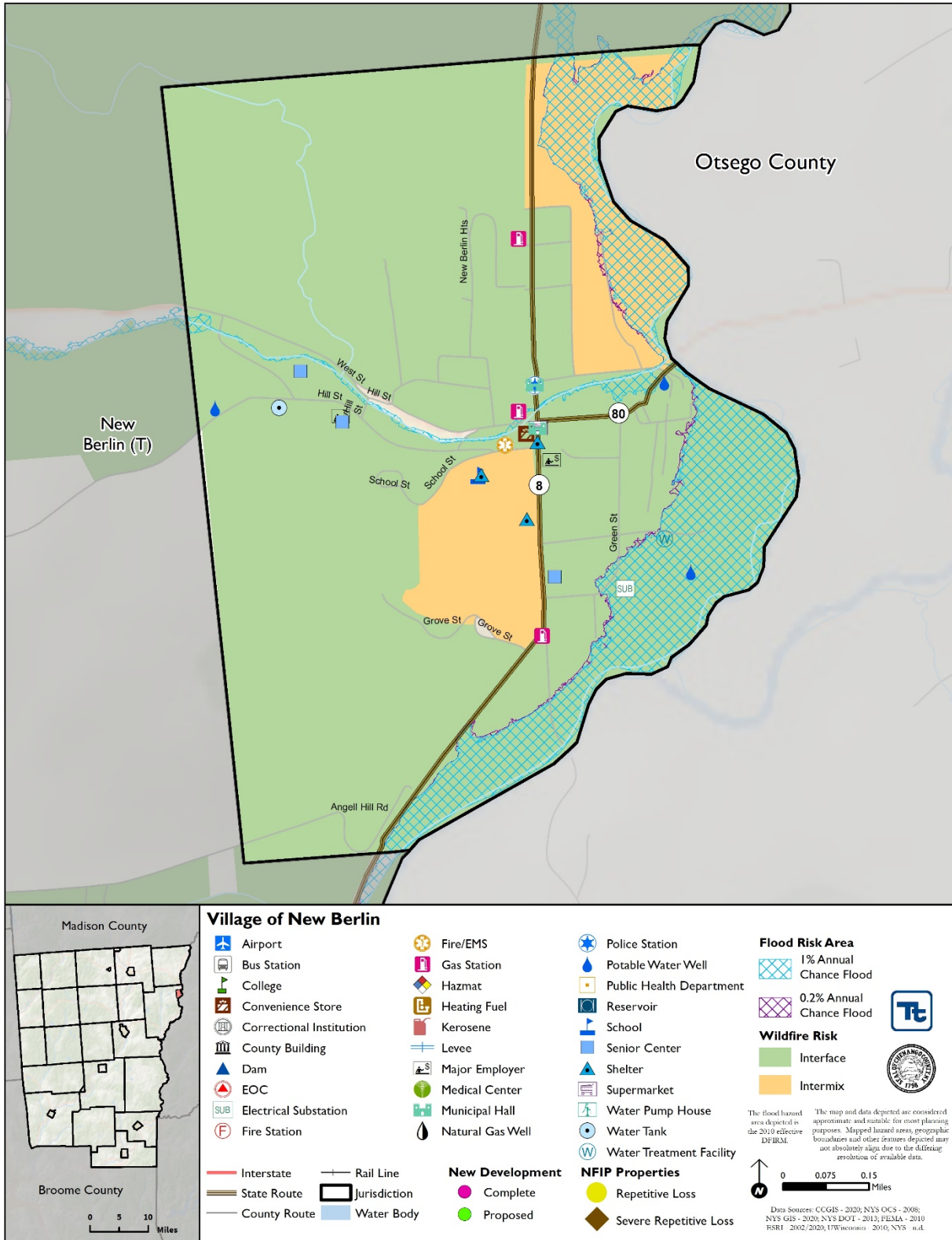
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.16.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Village of New Berlin that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of New Berlin has significant exposure. The map is illustrated below.



Figure 9.16-1. Village of New Berlin Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Millbrook Creek Embankment Containment Project		
Project Number:	2021-V. New Berlin-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	Areas near NY-80 experience frequent flooding and there are concerns about erosion and overtopping of the Unadilla River.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village will work with the NYSDOT and NYSDEC to resolve embankment and flooding concerns in the area. Proposed concrete sluice way along the Unadilla River as well as updating storm drains and catch basins to reduce flooding and water flow is being considered. The Village will work with the State and engineers to resolve the issue and increase the drainage capacity.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	High, reduces flooding concerns
Useful Life:	50 years	Goals Met:	1, 2, 3, 4
Estimated Cost:	Medium-High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	1-2 years
Estimated Time Required for Project Implementation:	<6 months	Potential Funding Sources:	FEMA BRIC, HMA, NYSDOT, Bridge NY
Responsible Organization:	New Berlin DPW	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Raise roadway crossing	\$1M+	Will be costly, Village does not have jurisdiction over NYS-80
	Install a dam to reduce flow of water	N/A	Will disrupt downstream communities and will not reduce erosion concerns
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Millbrook Creek Embankment Containment Project	
Project Number:	2021-V. New Berlin-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces risk to residents along river
Property Protection	1	Reduces risk to businesses and property along river
Cost-Effectiveness	1	
Technical	0	Village will need support from NYSDOT
Political	0	Village does not have jurisdiction over NY-80
Legal	1	
Fiscal	0	Village will need funding support to complete project
Environmental	1	No anticipated environmental concerns
Social	1	
Administrative	1	Village Board supports project
Multi-Hazard	1	Flood, Severe Storms, and Winter Storms all have impacted flooding
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Water System Upgrades		
Project Number:	2021-V. New Berlin-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	The old water mains and well house is outdated and the well has experienced damages due to being located within the 1% SFHA.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town DPW and Water Department will upgrade and replace the water mains and water lines throughout the Village. They are currently undersized for the capacity needed and are more than 100 years old and have experienced shutdowns and issues in the past. An upgraded water system will ensure continual water supply for Village residents.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	High, ensures safe and clean drinking water
Useful Life:	99 years	Goals Met:	1, 2, 3, 4, 6, 7
Estimated Cost:	High	Mitigation Action Type:	LPR, SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within next 5 years
Estimated Time Required for Project Implementation:	To be completed within 5 years	Potential Funding Sources:	FEMA BRIC, HMA, Municipal Budget Support
Responsible Organization:	New Berlin DPW, Water Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate Water Well	\$500,000	Does not fix issue of old and decaying pipes, should still be considered however
	Upgrade water mains only	\$1M	Does not reduce flood impacts to water well
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Water System Upgrades	
Project Number:	2021-V. New Berlin-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures safe and clean drinking water
Property Protection	1	Prevents old water pipes from bursting
Cost-Effectiveness	1	
Technical	0	Village will need support from an engineer
Political	1	Has been discussed for years by Village Board
Legal	1	
Fiscal	0	Village will need funding support
Environmental	1	No known impacts
Social	1	Residents support this project
Administrative	1	
Multi-Hazard	1	Flood and storm impacts have increased damages to water system
Timeline	1	To be completed within 5 years
Agency Champion	1	
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



9.17 Town of North Norwich

This section presents the jurisdictional annex for the Town of North Norwich. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of North Norwich's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.17.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of North Norwich's hazard mitigation plan primary and alternate points of contact.

Table 9.17-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Joseph Eldred, Highway Superintendent 6521 Co. Road 32, Norwich NY 13815 607-334-9224 x.2 / cell: 607-316-6787 nonhwy@gmail.com	Robert Wansor, Supervisor 6578 State Hwy 12, Norwich, NY 607-334-4703 drbob.wansor@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court Street Norwich, NY 13815 607-337-1975 StevenF@co.chenango.ny.us	

9.17.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 1,783.

The Town of North Norwich is located directly north of the City of Norwich and is in the eastern half of Chenango County. The Chenango River flows southward through the town.

The first settlers came to North Norwich in 1794. The Town of North Norwich was established in 1849 from the northern part of the Town of Norwich. The former Chenango Canal passed through the town.

The Town of North Norwich is governed by an elected five member Town Board composed of a Town Supervisor, who also represents the town at the County Board of Supervisors, and four (4) Council members. This governing body will assume responsibility for adoption and implementation of this plan. The Town has an elected: Town Highway Superintendent; two (2) Town Justices and a Town Clerk.

9.17.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.17-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.17-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

**Table 9.17-2. Recent and Expected Future Development**

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
Earl B. Clark Industrial Park	Commercial IDA Project		Unknown		97.-1-36.3		AE flood zone on boundary-not development area		Vacant land at this time- some infrastructure	
Hamlet of North Norwich – Extension of NYSE & G Natural Gas Service	Commercial and Residential		Unknown		NYS Rte. 12 & Co. Roads 20 and 23		Flood Zone AE and a near river parcels and railroad		Primarily residential	
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.17.4 Capability Assessment

The Town of North Norwich performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.17.4). The Town of North Norwich identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.



Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of North Norwich and where hazard mitigation has been integrated.

Table 9.17-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 1996	Local	Local Planning Board	No	No	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	Yes	Subdivision Regulations	Local, State	NYSDEC permits required for any major construction projects	Yes	-	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							



SECTION 9.17: Town of North Norwich

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Growth Management Regulation	Yes	Site Plan Review and Subdivision Regulations	Local	Local Planning Board	No	No	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a	Local	Local Planning Board	No	No	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	?	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Adopted 4/1987, Amended 10/18/2010 – Local Law No.1, Flood Damage Prevention	Local, State, Federal	Administered by County Code Official under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
<p>Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> Local Law No. 1 of the year 2010, A local law entitled "FLOOD DAMAGE PREVENTION" enacted by the Town Board of the Village of North Norwich. The Town Board of the Town of North Norwich finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of North Norwich and that such damages may Include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ul style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program This local law shall apply to all areas of special flood hazard within the jurisdiction of the Town of North Norwich, Chenango County, New York. The areas of special flood hazard for the Town of North Norwich, Community Number 361089, are identified and defined on the documents prepared by the Federal Emergency Management Agency as various Flood Insurance Rate Map Panels, whose effective date is November 26, 2010. The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. 							



SECTION 9.17: Town of North Norwich

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<p>New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation.</p> <ul style="list-style-type: none"> In order to prevent potential flood damage to certain facilities that would result in serious danger to life and health, or widespread social or economic dislocation, no new critical facility shall be located within any Area of Special Flood Hazard, or within any 500-year flood zone shown as a B zone or a Shaded X zone on the Community's Flood Insurance Rate Maps 							
Municipal Separate Storm Sewer System (MS4) Regulation	No	EPA Phase II Stormwater Rule	Federal	-	Yes	-	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes	N/A	NA/
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	NYS Executive Law, Article 75	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	-	-	-	-	-	-
Comment: Sanitary Code. Adopted 1975 Refuse Disposal. Adopted 1962 Telecommunication Towers. Adopted 2001 Hazardous Waste. Adopted 1989 Junk Storage. Adopted 1999 Junk Cars. Adopted 1994 Mobile Home. Adopted 1996							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							



SECTION 9.17: Town of North Norwich

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	-	State	NYSDEC permit and Federal Agencies	No	No	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local, State	?	No	No	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	Yes	Right to Farm Law	Local	Town Board	Yes	No	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							



SECTION 9.17: Town of North Norwich

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Other (tourism, business dev, etc.)	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	No	-	Local	-	Yes	-	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	No	-	Local	-	No	No	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							
Other: Special Purpose Ordinances (such as critical or sensitive areas)							
Comment: Emergency Response Plan. State Mandated. Fire District/Chenango County EMS							



Table 9.17-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes; Town Clerk and Chenango County Code Enforcement
Permits are tracked by hazard area. For example, floodplain development permits.	Yes; Town Clerk and Chenango County Code Enforcement
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No; still mostly rural/agricultural

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of North Norwich.

Table 9.17-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	Highway Department
Mutual aid agreements	Yes	Fire Response/EMS
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	Yes	Chenango County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	Chenango Co. Health Dept., Div. of Code Enforcement-NFIP Admin.
Surveyor(s)	Yes	County Highway Department
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with North Norwich Fire Department
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of North Norwich.



Table 9.17-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes available to residents in past
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of North Norwich.

Table 9.17-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	Yes – The Town maintains a website
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Yes – Hyper-Reach and Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of North Norwich.

Table 9.17-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A



Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	North Norwich 9/10 Norwich Fire 3/10	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.17-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperature	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of North Norwich.



Table 9.17-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of North Norwich	7	3	\$40,347	0	-	2

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of North Norwich has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of North Norwich has not completed any Community Assistance Visits (CAV).

Regulatory

The Town of North Norwich Flood Damage Prevention Ordinance (FDPO) was last updated on October 18, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

- **Infrastructure Protection/Floodplain Management:** Enhance stormwater management: Increase the size and capacity of existing culverts. Increase number of culverts where necessary.
- **Infrastructure Protection/Floodplain Management:** Control construction of Beaver Dams in wetlands and along the small streams by working with NYSDEC. The areas needing special attention: West Cayuga St, Sherburne-Four Corners-Brookins Rd, Cooley and Follett Hill Roads.



- **Infrastructure Protection/Floodplain Management:** Retrofit flood prone roadways by raising above flood elevation and oversize existing culverts especially in the Follett Hill and Ripple Rd. areas.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

NY-12 is the most likely evacuation route for North Norwich Residents. However, road conditions change often, and residents should seek out accurate and up-to-date information from the Town or County Website.

Sheltering

DCMO BOCES Occupational Center has been identified as a sheltering location on the Red Cross National Shelter Survey (NSS).

Temporary Housing

The Town of North Norwich has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of North Norwich did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.17.5 Hazard Event History Specific to the Town of North Norwich

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of North Norwich's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.17-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.17-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
March 13-14, 2016	Snow	Yes	Heavy snow, vehicle damage	Dump Truck damages
October 2019	Flooding	Yes	Heavy rain and flooding washing out roads and damaging culverts	Damage to roads and culverts

Notes:

EM Emergency Declaration (FEMA)





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

9.17.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of North Norwich's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.17-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None Identified				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future



climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of North Norwich. The Town of North Norwich has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of North Norwich indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.17-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Medium	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

**The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality*

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Meads Pond Road adjacent to County property and Mobile Home Park ongoing problem with drainage issues.
- Tracy Road major drainage problems, upgraded culverts but may continue to be a problem area.
- Bridge on route 12
- Many culverts are undersized. See Mitigation Action # 2021-T. North Norwich-001 and 2021-T. North Norwich-002.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Thompson Creek on State Hwy 320 blocked by downed trees diverting water during heavy/excessive rain to divert through yards. The water table rise causes water in our basement either through seepage or sump hole overflow.
- Cell phone connections are horrible here. I often can't get a message out or in for several days. If the power and land line is out, 911 emergency I can't reach with my cell.
- Flood-prone lots around the Chenango River on State Hwy 320 near Woods Corners. The creek behind our house is blocked upstream by downed trees and rocky sediment causing water to be diverted through backyards bordering the creek and ending up flowing through our property.

9.17.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.



Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.17-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TNN-1 (Former TNN-1)	Enhance stormwater management	Flood, Severe Storm	Town of N. Norwich Highway Dept., Chenango Co. DPW Soil/Water; NYSDEC	Increase the size and capacity of existing culverts. Increase number of culverts where necessary.	Ongoing Capability	Cost	-	The Town continues to identify and replace undersized culverts. See Mitigation Action # 2021-T. North Norwich-001
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TNN-2 (Former TNN-2)	Control construction of Beaver Dams	Flood, Severe Storm	Town of N. Norwich Highway Dept., Chenango Co. DPW Soil/Water; NYDEC	Control construction of Beaver Dams in wetlands and along the small streams by working with NYSDEC. The areas needing special attention: West Cayuga St, Sherburne-Four Corners-Brookins Rd, Cooley and Follett Hill Roads.	Ongoing Capability	Cost	-	The Town continues to work with Chenango County Soil and Water Conservation District and the NYSDEC to monitor beaver dams and follows their recommendations for beaver management.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TNN-3 (Former TNN-3)	Retrofit flood-prone roadways	Flood, Severe Storm	Town of N. Norwich Highway Dept., Chenango Co. DPW	Retrofit flood prone roadways by raising above flood elevation and oversize existing culverts especially in the Follett Hill and Ripple Rd. areas.	Ongoing	Cost	-	The Town continues to retrofit roadways and replace undersized culverts. See Mitigation Action # 2021-T. North Norwich-002
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TNN-4 (Former TNN-4, -5)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	-	
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Level of Protection	-	The Town continually supports mitigation awareness and actions as developed by County, State, and Federal partners.
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of North Norwich has not identified any mitigation projects or initiatives apart from those included in the in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of North Norwich worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.17-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of North Norwich would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.17-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.17-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. North Norwich-001	Bryant Road Culvert	1, 2, 3, 4	Flood, Severe Storm, Severe Winter Storm	Problem: The culverts on Bryant Road are worn out and experiencing erosion between then, cavitating the roadway underneath. Solution: The Town of North Norwich Highway Department will replace the culverts with a larger, single concrete box culvert that is appropriately sized to handle the water flow to reduce flooding and erosion of the roadway.	No	No	Short, within next 5 years	Town of North Norwich Highway Department	\$80,000	Reduces roadway repairs after storms and flood events – estimated at \$150,000	General Fund/CHIPS	High	SIP, NSP	NR, SP
2021-T. North Norwich-002	Posson Road Culvert	1, 2, 3, 4	Flood, Severe Storm, Erosion	Problem: There are two culverts on Posson Road that are undersized and worn out, causing damages to the roadway that needs frequent repairs to combat erosion and deterioration of the road. Solution: The Town of North Norwich Highway Department will replace the two culverts with one larger culvert to eliminate erosion concerns.	No	No	Short, within next 5 years	Town of North Norwich Highway Department	\$80,000	Reduces roadway repairs after storms and flood events – estimated at \$150,000	General Fund/CHIPS	High	SIP, NSP	NR, SP
2021-T. North Norwich-003	Intermediate Hazard Dam Outreach	1, 2, 3, 4, 5, 7	Flood	Problem: The NYSDEC owned Howard Jeffrey Dam is classified as an "intermediate hazard" Class B Dam and is located within the Town of North Norwich. Solution: The Town will coordinate with the NYSDEC about any changes to the status of the Dam and aid in the development of updated EAPs as necessary.	Yes	No	Short, within next 5 years	Town of North Norwich	Low	High	Municipal Budget	High	EAP	PR

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV Community Assistance Visit
 CRS Community Rating System

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program
 HMGP Hazard Mitigation Grant Program

Timeline:

The time required for completion of the project upon implementation



DPW	Department of Public Works	PDM	Pre-Disaster Mitigation Grant Program
EHP	Environmental Planning and Historic Preservation	BRIC	Building Resilient Infrastructure and Communities
FEMA	Federal Emergency Management Agency		
FPA	Floodplain Administrator		
HMA	Hazard Mitigation Assistance		
N/A	Not applicable		
NFIP	National Flood Insurance Program		
OEM	Office of Emergency Management		


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.17-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. North Norwich-001	Bryant Road Culvert	1	1	1	1	1	1	0	1	0	0	1	1	0	0	9	High
2021-T. North Norwich-002	Posson Road Culvert	1	1	1	1	1	1	0	1	0	0	1	1	0	0	9	High
2021-T. North Norwich-003	Intermediate Hazard Dam Outreach	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.17.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.17-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood		001, 002	001, 002	003	003			001, 002	001, 002	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001, 002	001, 002					001, 002	001, 002	
Severe Winter Storm		001	001					001	001	
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.17.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of North Norwich followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Highway Department and the Supervisor's Office. The Highway Superintendent represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

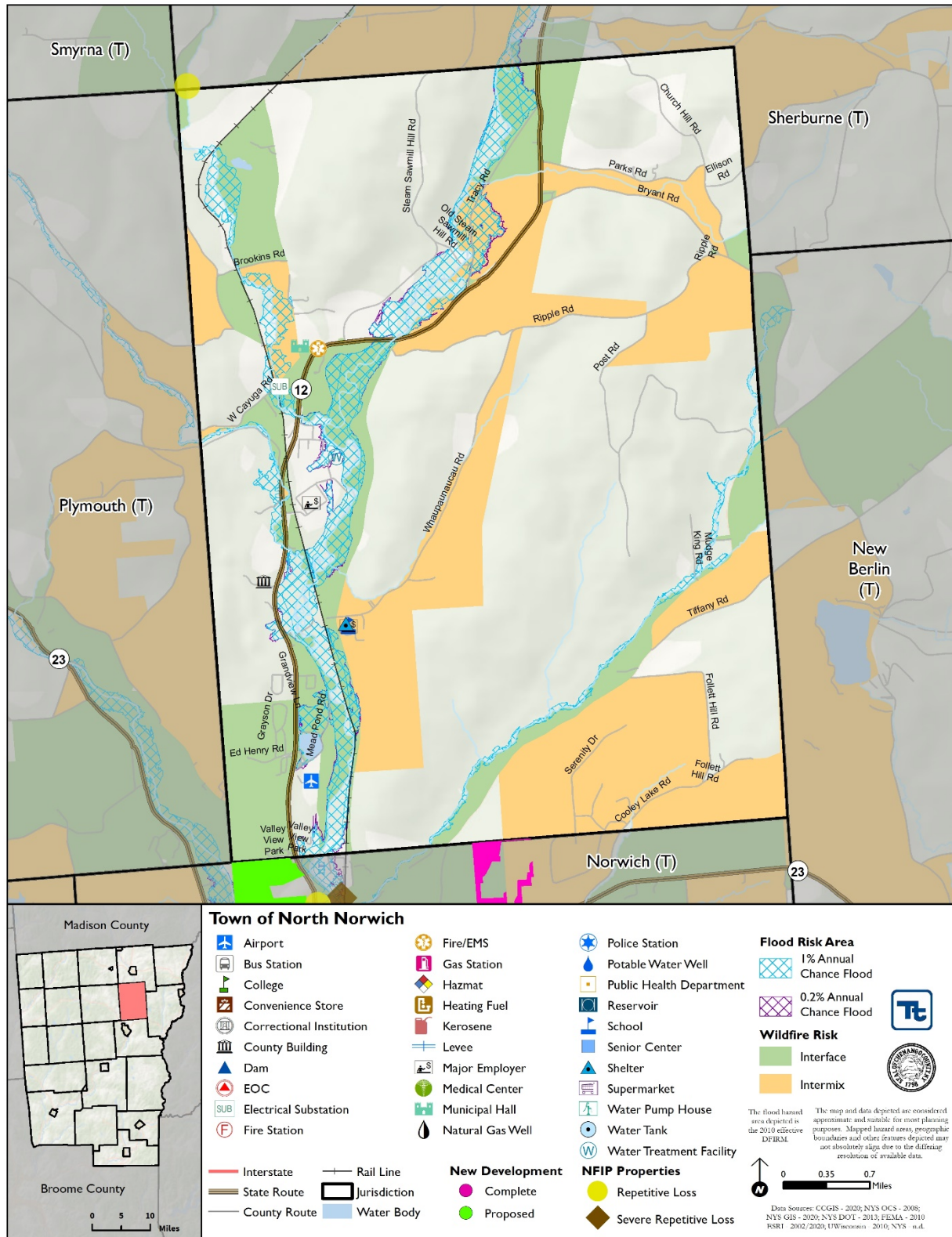
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.17.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of North Norwich that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of North Norwich has significant exposure. The map is illustrated below.



Figure 9.17-1. Town of North Norwich Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Bryant Road Culvert		
Project Number:	2021-T. North Norwich-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	The culverts on Bryant Road are worn out and experiencing erosion between them, cavitating the roadway underneath.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of North Norwich Highway Department will replace the culverts with a larger, single concrete box culvert that is appropriately sized to handle the water flow to reduce flooding and erosion of the roadway.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	Reduces roadway repairs after storms and flood events – estimated at \$150,000
Useful Life:	50 years	Goals Met:	1, 2, 3, 4
Estimated Cost:	\$80,000	Mitigation Action Type:	SIP, NSR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within next 5 years
Estimated Time Required for Project Implementation:	90 days	Potential Funding Sources:	General Fund/CHIPS
Responsible Organization:	Town of North Norwich Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	DEC
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Replace with two new culverts	\$60,000	Does not eliminate erosion/road deterioration concerns
	Elevate entire roadway	N/A	Unfeasible, does not address erosion events
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Bryant Road Culvert	
Project Number:	2021-T. North Norwich-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Stop road from erosion
Property Protection	1	Eliminate the potential of road closure
Cost-Effectiveness	1	Closing and repairing the roadway would be costly
Technical	1	Will last a lifetime
Political	1	Residents and Town Officials agree
Legal	1	Within ROW
Fiscal	0	Funds are not in place for this project
Environmental	1	Permits would need to be granted
Social	0	Alt. routes would be used
Administrative	1	Resources would be used
Multi-Hazard	1	Reduce the chance of roadway closure and flooding
Timeline	1	Permits and Supplies would be available
Agency Champion	0	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Posson Road Culvert		
Project Number:	2021-T. North Norwich-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Erosion		
Description of the Problem:	There are two culverts on Posson Road that are undersized and worn out, causing damages to the roadway that needs frequent repairs to combat erosion and deterioration of the road.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of North Norwich Highway Department will replace the two culverts with one larger culvert to eliminate erosion concerns.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	Reduces roadway repairs after storms and flood events – estimated at \$150,000
Useful Life:	50 years	Goals Met:	1, 2, 3, 4
Estimated Cost:	\$80,000	Mitigation Action Type:	SIP, NSR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within next 5 years
Estimated Time Required for Project Implementation:	90 days	Potential Funding Sources:	General Fund/CHIPS
Responsible Organization:	Town of North Norwich Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	DEC
Three Alternatives Considered (including No Action)			
Alternatives:	Alternatives:	Action	Estimated Cost
	No Action	No Action	\$0
	Replace with two new culverts	\$60,000	Does not eliminate erosion/road deterioration concerns
	Elevate entire roadway	N/A	Unfeasible, does not address erosion events
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Posson Road Culvert	
Project Number:	2021-T. North Norwich-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Stop road from erosion
Property Protection	1	Eliminate the potential of road closure
Cost-Effectiveness	1	Closing and repairing the roadway would be costly
Technical	1	Will last a lifetime
Political	1	Residents and Town Officials agree
Legal	1	With in ROW
Fiscal	0	Funds are not in place for this project
Environmental	1	Permits would need to be granted
Social	0	Alt. routes would be used
Administrative	0	Resources would be used
Multi-Hazard	1	Reduce the chance of roadway closure and flooding
Timeline	1	Permits and Supplies would be available
Agency Champion	0	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	



9.18 City of Norwich

This section presents the jurisdictional annex for the City of Norwich. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the City participated in the planning process; an assessment of the City of Norwich's risk and vulnerability; the different capabilities utilized in the City; and an action plan that will be implemented to achieve a more resilient community.

9.18.1 Hazard Mitigation Planning Team

The following individuals have been identified as the City of Norwich's hazard mitigation plan primary and alternate points of contact.

Table 9.18-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Jan Papelino, Fire Chief 31 East Main Street Norwich, NY 13815 607-334-1214 nfdchief@norwichnewyork.net	None Identified
NFIP Floodplain Administrator	
Amy Donnison, Code Enforcement Officer One City Plaza, Norwich, NY 13815 607-334-1233 adonnison@norwichnewyork.net	

9.18.2 Municipal Profile

According to the U.S. Census, the 2010 population for the City was 7,190.

The City of Norwich is located in picturesque upstate New York, nestled in the Chenango River Valley and has a total area of just over 2.0 square miles. The river winds south along the eastern edge of the city. Along the western border, the Canasawacta Creek flows south, until it unites with the Chenango River at the southern city limits.

Regionally, Norwich lays almost dead center of the "upside down triangle" that can be drawn connecting the cities of Syracuse, Albany, and Binghamton, along Interstates 90, 88, and 81, respectively. The City is located in the center of this triangle, on the intersection of State Highway 12 and State Highway 23.

Norwich is located less than an hour from the greater Binghamton area, Oneonta, Cortland and Utica. Syracuse is just over an hour away and Albany and Rochester are two hours from Norwich.

The first settlers arrived around 1788. The Town of Norwich was formed in 1793 from the Towns of Union (now in Broome County) and Bainbridge in southeastern Chenango County. Afterwards, Norwich, as a "mother town" of the county, lost substantial territory in the formation of new towns. In 1806, Norwich gave up territory to form the Towns of Pharsalia, Plymouth and Preston. More of Norwich was lost in 1807 to form part of New Berlin and part of the Town of Columbus. In 1808 and 1820, Norwich exchanged territory with the Town of Preston.



The community of Norwich set itself off from the town in 1816 by incorporating as a village, later becoming the City of Norwich in 1914.

The City is governed by a six-member Common Council and a part-time Mayor form of government. This governing body will assume responsibility for adoption and implementation of this plan. The Mayor's position is part-time and has a two-year term. The Common Councilors are also part-time and serve four-year terms. Three Council seats are up for election every other November.

The City's Charter provides for a strong Common Council, weak Mayor System. While the Mayor controls the day-to-day operations of the City, all ordinances, laws and budget matters are ultimately decided by the Common Council. The Mayor leads the Council meetings but only has a vote in the event of a tie. All City department heads report to the Mayor on a day-to-day basis.

The City is also represented on the County level by two City supervisors who are elected every two years. One Supervisor serves Wards 1, 2 and 3 in the City (primarily the western portion of the City) and the other represents Wards 4, 5 and 6 (predominately the eastern section). The Supervisors only act as a representative for the City on the County level. They do not have a vote at the City level or serve on any City committees.

9.18.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.188-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.188-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.18-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	1 (replaced existing home)	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	1	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
Norwich Shoe Apartments	Residential		34 units, 4 structures		136.41-1-7 (Main Structure)		Wildfire Interface Area		Residential	
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None Identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.



9.18.4 Capability Assessment

The City of Norwich performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.18.4). The City of Norwich identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the City of Norwich and where hazard mitigation has been integrated.

Table 9.18-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Code Enforcement	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017)..Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	Yes	Chapter 575 Adopted 1981, amended 1997	Local	Code Enforcement, Planning	No	Yes	N/A
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan" ¹¹ or "in accordance with a comprehensive plan." ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable
<p>to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level</p> <ul style="list-style-type: none"> Chapter 575, Zoning. This chapter shall be known and may be cited as the "Zoning Ordinance of the City of Norwich." Except as provided in this chapter, no building, structure or premises shall be used or occupied, and no building or part thereof or other structure shall be erected, moved, placed, reconstructed, extended, enlarged or altered, except in conformity with the regulations herein specified for the district, as shown on the Zoning Map. Average Density Development and Planned Use Development are two techniques introduced in the Ordinance to allow for flexibility in design and development. The purpose of average density development is to permit variation in lot size in areas proposed for development within residential districts in order to encourage flexibility of design, to enable land to be developed in a manner sensitive to the natural physical features of the land, and to facilitate adequate and economical provision of streets and utilities. It is the intent of the Planned Use Development section of the Ordinance to provide for compatible development of a variety of land uses and to encourage innovations in development and renewal techniques to enable community demands to be met with greater flexibility, variety of style, design, and layout of sites and buildings, and efficient use of open spaces and other amenities, and that such development and innovation be in accordance with the Comprehensive Plan and supporting plans, policies and development objectives of the City of Norwich. 							
Subdivision Regulations	Yes	Chapter 490, Subdivision of Land Adopted 1962	Local	Planning Board	No	Yes	N/A
<p>Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).</p> <ul style="list-style-type: none"> The provisions of this chapter shall be held to be the minimum requirements adopted for the protection of the public health, safety and welfare. The provisions of this chapter shall be administered by the Planning Commission of the City of Norwich. No person shall subdivide any tract of land which is located within the City except in conformity with the provisions of this chapter. The provisions of this chapter shall be administered by the Planning Commission of the City of Norwich. No person shall subdivide any tract of land which is located within the City except in conformity with the provisions of this chapter. Lots subject to flooding and lots deemed by the Commission to be uninhabitable shall not be platted for residential occupancy, nor for such other uses as may increase danger to health, life or property or aggravate the flood hazard, but such land within the plat shall be set aside for such uses as shall not produce unsatisfactory living conditions. Preliminary Plat details shall include provisions for sewage disposal, drainage and flood control. Where a subdivision is traversed by a watercourse, drainageway, channel or stream, there shall be provided a stormwater easement or drainage right-of-way conforming substantially with the lines of such watercourse, and such further width or construction, or both, as will be adequate for the purpose. 							
Stormwater Management Regulations	Yes	Title 6, Ch. X,17-7,8,70	Local	Planning Board	Yes	No	-
<p>Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department</p>							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	No	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
<p>Comment: In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure</p>							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable
statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	No	-	Local	-	No	-	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	Adopted 1981	Local	Code Enforcement	No	No	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	-	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Chapter 273, Flood Damage Prevention, 2010	Local, State, Federal	Code Enforcement	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
<p>Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> Chapter 273, Flood Damage Prevention. The Common Council of the City of Norwich finds that the potential and/ or actual damages from flooding and erosion may be a problem to the residents of the City of Norwich and that such damages may include destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program. The areas of special flood hazard for the City of Norwich, Community Number 360161, are identified and defined on the following documents prepared by the Federal Emergency Management Agency: <ol style="list-style-type: none"> (1) Flood Insurance Rate Map Panel Numbers 36017C0241E, 36017C0242E, 36017C0243E, 36017C0244E, whose effective date is November 26, 2010, and any subsequent revisions to these map panels that do not affect areas under our community's jurisdiction. (2) A scientific and engineering report entitled "Flood Insurance Study, Chenango County, New York, All Jurisdictions," dated November 26, 2010. The Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard: (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable
permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation.							
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	-	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	Chapter 44 Updated 2009	Local	Maintained by Emergency Management Officer	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	-	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	-	-	-	-	-	-
Comment: Chapter 281, Freshwater Wetlands, adopted on the 17th day of August 1976. Pursuant to § 24-0501 of the New York State Freshwater Wetlands Act (Article 24 of the New York Environmental Conservation Law), the City of Norwich shall fully undertake and exercise its regulatory authority with regard to activities subject to regulation under the Act in freshwater wetlands							
Planning Documents							
Comprehensive Plan	Yes	Comprehensive Plan Adopted May 20, 2014	Local	Mayor's Office/Planning Department/Planning Commission	No	Yes	N/A
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level <ul style="list-style-type: none"> City of Norwich Comprehensive Plan, Adopted May 20, 2014. The focus of the comprehensive planning effort continues to be asset-based, building on community strengths and existing programs and efforts to: <ul style="list-style-type: none"> Improve livability through economic growth that creates new business and job opportunities, strengthens the downtown, expands the tax base and generates wealth and investment; Protect and enhance residential neighborhoods, expanding housing options by enhancing existing residential areas and creating new housing; and Enhance the appearance of and attractions to the City by building on its cultural assets including the Chenango County Council of the Arts, local museums in the recently designated Museum District and attractive historic homes and commercial structures. 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable
<ul style="list-style-type: none"> Since the seven goals established in the 2003 action plan are considered to be consistent with current community concerns, they have been retained in this update. The goals address municipal services, economic development, downtown Norwich, transportation, historic preservation, housing, and arts, culture and recreation. Much of the city is situated within a FEMA-designated flood hazard area, which requires homebuyers seeking mortgages to purchase flood insurance through the National Flood Insurance Program. The city experienced significant flood events in 2005 and 2006. Another flood event in 2011 affected the city less severely, while other areas of the Southern Tier Region were more severely affected. Flood mitigation strategies implemented by the Army Corps of Engineers and the City since the 1950s have drastically reduced the amount and severity of flooding within the City. Some flooding issues associated with stormwater runoff can be traced to the city's aging storm sewer system. Ongoing upgrades to the system and site containment design regulations imposed on new development are intended to better manage stormwater runoff. Citing flood damage that occurred north and south of city during the summer of 2006, the New York, Susquehanna & Western (NYSW) Railroad announced an embargo of the Utica Branch of the rail line, which passes through the city and county. In 2009, the City installed an automated stream level gauge system to provide better advance warning of potential flood events. 							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	No	-	Local	-	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	No	-	Local	-	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	Yes	B.I.D. Norwich Business Improvement District Plan, approved 11/15/05	Local	BID Board of Directors	No	Yes	N/A



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable
<p>Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.</p> <ul style="list-style-type: none"> The Norwich Business Improvement District (BID) Management Association was incorporated under Section 402 of the Not-for Profit Corporation Law in 1992 and was determined to be a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code. The BID essentially functions as a private sector organization in accordance with Article 19-A of the General Municipal Law. The BID will continue to enhance the safety, cleanliness, image and competitiveness of our downtown district by providing programs and services as determined necessary by members of the District as well as the BID Board of Directors. Presently, the lands within the District are used primarily for commercial and business purposes. Because Norwich is the county seat, other uses include governmental, office, and residential uses. Retail, restaurants, banks, professional offices and government uses are located along East & West Main Street and North & South Broad Streets The legislative body shall have the authority to exercise the following powers with respect to the District; Provide for the district improvements located on or within municipally or district owned or leased property which will restore or promote business activity in the district; provide for the operation and maintenance of any district improvements; and provide for additional maintenance or other additional services required for the enjoyment and protection of the public and the promotion and enhancement of the district. <p>Other Economic Development Planning:</p> <ul style="list-style-type: none"> City of Norwich Brownfield Opportunity Area Revitalization Plan, January 2018. This Revitalization Plan represents Step 2 of the Brownfield Opportunity Area (BOA) Program for the City of Norwich. The City of Norwich completed a Pre-Nomination study in January of 2009 that detailed a conceptual strategy for the City. This study produced an initial analysis of key properties and projects throughout the study area that have the potential to be returned to productive use as well as serve as catalysts for future revitalization. This report represents the second step in the planning process. The City's wastewater treatment plant, about a mile south of the city, has suffered repetitive and significant damage from flooding. After the latest flood in 2011, the plant suffered approximately \$800,000 in damages. This was the third major flood to impact the plant since 2005. Therefore, the plant needs to rent high capacity pumps to keep the plant online during flooding. The Perry Browne School is located in the Special Flood Hazard Area. While it has not suffered structural damages to date due to flooding, major flood events have threatened the structure and future risk to flooding is identified as a concern. Citing flood damage that occurred north and south of City during the summer of 2006, the New York, Susquehanna & Western (NYS&W) Railroad halted the Utica Branch of the rail line, which passes through the City and county. In 2008, NYS&W formally applied to the Surface Transportation Board for discontinuance of service. The City, County, and Commerce Chenango are actively engaged in trying to resume freight rail service along the line. After receiving substantial NYSDOT funds and other federal assistance, restoration along the tracks is in progress with completion scheduled for 2017. Upon completion, the project will permit restoration of NYS&W service between Binghamton and Utica and will provide freight access to the Norfolk Southern Railway and CSX lines. 							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
<p>Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations</p>							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
<p>Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.</p>							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	Yes	Comprehensive Plan Adopted May 20, 2014	Local	-	No	Yes	-
<p>Comment: A plan for an Integrated-Multi-Modal Transportation System is detailed within the 2014 City of Norwich Comprehensive Plan.</p>							
Agriculture Plan	No	-	Local	-	Yes	-	-
<p>Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.</p>							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable
Other (tourism, business dev, etc.)	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Maintained by Emergency Management Officer	Yes	Yes	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	-	Local	-	No	-	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							



Table 9.18-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Code Enforcement
Permits are tracked by hazard area. For example, floodplain development permits.	No, tracked by address
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No, minimal land/space available

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the City of Norwich.

Table 9.18-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Norwich Business Improvement District Management Association, Inc. (BIDMA)
Warning Systems / Services	Yes	Norwich/Chenango County NY EMO Phone App; Notify Chenango; Skywarn Program
Maintenance programs to reduce risk	No	-
Mutual aid agreements	No	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Planning/Community Development/City of Norwich/Planning Specialist
Engineers or professionals trained in building or infrastructure construction practices	Yes	Codes Enforcement Officer/City of Norwich/Code Officer
Planners or engineers with an understanding of natural hazards	No	-
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	Yes	Emergency Management
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Scientist familiar with natural hazards	Yes	Chenango County Soil & Water Conservation District
NFIP Floodplain Administrator (FPA)	Yes	Codes Enforcement Officer/City of Norwich/Code Officer
Surveyor(s)	No	-
Emergency Manager	Yes	Emergency Management Office/City of Norwich/Director of Emergency Management
Grant writer(s)	Yes	Planning/Community Development/City of Norwich/Planning Specialist/Cornell Cooperative Extension
Resilience Officer	No	-
Other	-	-



Fiscal Capability

The table below summarizes financial resources available to the City of Norwich.

Table 9.18-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use
Community development Block Grants (CDBG, CDBG-DR)	Yes (not applicable to most projects in this plan)
Capital improvements 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	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	Yes
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	No

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the City of Norwich.

Table 9.18-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Handled by Emergency Management during an emergency.
Personnel skilled or trained in website development?	No, contracted out
Hazard mitigation information available on your website; if yes, describe	Yes, Links to HMP and personal preparedness information from the Red Cross
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes, City of Norwich Emergency Management Facebook page
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Norwich/Chenango County NY EMO Phone App; Notify Chenango
Warning systems for hazard events; if yes, briefly describe.	Norwich/Chenango County NY EMO Phone App; Notify Chenango; Emergency Operations Center
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Unknown
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the City of Norwich.

Table 9.18-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A



Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Building Code Effectiveness Grading Schedule (BCEGS)	No	N/A	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	N/A	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	Yes	N/A	April 2001
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.18-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Amy Donnison, City Code Enforcement Officer

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the City of Norwich.



Table 9.18-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
City of Norwich	194	201	\$1,411,677	42	-	163

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The City Code Enforcement Officer serves as the NFIP Floodplain Administrator. The Code Enforcement Office is responsible for building permits and inspections, zoning compliance, ZBA special permits, and fire/life safety inspections including evacuation training and property maintenance inspections. The Code Enforcement Office also oversees common code violations such as unsafe buildings and constriction permits. The City Planning Department works with the Code Enforcement Office to preform environmental planning, long-range neighborhood planning, and review of development proposals and permits.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The City of Norwich has completed Community Assistance Visits (CAV), with the most recent visit completed in 2016.

Regulatory

The City of Norwich Flood Damage Prevention Ordinance (FDPO) was last updated on October 19, 2010. The City's floodplain management program meets minimum requirements.

Additional Areas of Existing Integration

- The City will update their existing Comprehensive Emergency Management Plan once the County completes updating their plan.
- The City updated their Comprehensive Plan in 2014. A comprehensive plan provides goals, objectives, guidelines and policies for the immediate and long-range protection, enhancement growth and community development. The updated plan contains seven goals with subsequent actions.
- The City has their ordinances available on their website. Please visit <http://ecode360.com/NO0235> to see the City of Norwich's codes and ordinances, including their flood damage prevention ordinance.
- The City's website also has 'Norwich News' board that holds information on current events, City meetings, and public health and safety advisories. The City also has a 'Weather and Emergency Info' page on their website that displays current weather information, watches and warnings. The City of Norwich/Chenango County Emergency Operations Center has several social media outlets that provide the public information regarding weather and public health and safety advisories.
- The City continues to utilize and promote a mass notification system that allows us to email, text or call residents in the event of an emergency. This system has been used multiple times for reverse notifications during potential flood situations. All alerts are also automatically posted to our emergency management Twitter and Facebook pages.
- The City and County joined together to develop a smartphone app for Android and iOS phones. This allows the City and County to send push notifications to those who have downloaded our app.



- All City fire, Police, Emergency Management and Public Works employees receive ICS/NIMS training consistent with the NIMSCast requirements.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

NY-12 and NY-23 should be used for evacuation within the City of Norwich. However, as road conditions and availability of routes change, residents should refer to the City Emergency Management Website, or alerts on the Norwich/Chenango County NY EMO smartphone app for up-to-date evacuation routes.

Sheltering

The following are identified as shelter locations by the American Red Cross National Sheltering Survey, but for current openings and availability, residents should refer to the City Emergency Management Website or Norwich/Chenango County NY EMO smartphone app:

- Emmanuel Episcopal Church
- First Baptist Church of Norwich
- DCMO/BOCES Occupational Center
- Norwich High School
- Norwich Middle School
- Saint Bartholomew Church
- Stanford-Gibson Primary School

Temporary Housing

The City of Norwich has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the City will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the City did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The City can utilize this analysis to identify potential locations.

9.18.5 Hazard Event History Specific to the City of Norwich

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The City of Norwich's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.188-11 provides details regarding municipal-specific loss and damages the City experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.



Table 9.18-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 1, 2016	Flash Flood	No	Isolated thunderstorms produced torrential rainfall across central New York, resulting in flash flooding on small streams and across roadways. Mudslides were reported near the border of Chenango and Otsego counties.	Torrential rainfall exceeding 3 inches in under 2 hours caused severe urban flooding in Norwich with approximately 14 roads closed at one time and three culvert washouts. Approximately \$50,000 in property damages were recorded.
April 16, 2017	Thunderstorm Wind	No	A cold front brought severe showers and thunderstorms ahead of an unstable warm air mass as it moved east across the region.	Winds reaching 50 mph downed trees and wires.
May 1, 2017	Thunderstorm Wind	No	A warm front created an unstable air mass across New York State and Pennsylvania, producing a line of thunderstorms. Winds reached speeds between 70 and 100 mph and numerous trees were knocked down, resulting in widespread power outages.	Microburst winds ranging between 90 to 100 mph were recorded near Binghamton. At least 100 healthy trees were snapped or uprooted around the City of Norwich reservoir along route 23.
August 12, 2017	Thunderstorm Wind	No	Severe storms produced damaging winds and large hail as they moved across the region.	This thunderstorm produced severe winds and knocked over several trees in the area.
May 4, 2018	Thunderstorm Wind	No	A warm front merging with an area of low pressure resulted in a line of severe thunderstorms across central New York.	Thunderstorm winds blew numerous trees and wires down on Cortland Street with wires causing a grass fire. An estimated \$10,000 in property damages were recorded.
November 1, 2019	Flood	No	Rainstorms and thunderstorms developed ahead of a low pressure system, bringing 1 to 3 inches of rain throughout the region, with localized amounts reaching 5 inches. Several periods of flash flooding occurred.	The Canasawacta Creek rose rapidly and flooded portions of the City of Norwich. Twenty-five homes and one business were affected with damages totaling about \$750,000.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.18.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the City of Norwich's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to



provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.18-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Chenango County Highway Department	County Building	Yes	Yes	2021-Chenango County-003
Norwich Canasawacta Creek	Levee	Yes	Yes	2021- C. Norwich-002
Chentronics, LLC	Major Employer	Yes	Yes	2021-C. Norwich-004
Greater Opportunities for Broome and Chenango Inc.	Major Employer	Yes	Yes	2021-C. Norwich-004
Valley View Skilled Nursing Home	Major Employer	Yes	Yes	2021-C. Norwich-004
Water Tank	Potable Water Facility	Yes	Yes	2021- C. Norwich-001
Wastewater Treatment Facility	Wastewater Facility	Yes	Yes	2021- C. Norwich-001
Chenango County Office Building	County Building	No	Yes	2021-Chenango County-004
Catholic Charities	Major Employer	No	Yes	2021-C. Norwich-004
Marlene Meadows Apartments	Senior Center	No	Yes	2021-C. Norwich-004

Source: HAZUS-MH 4.2



Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the City of Norwich. The City of Norwich has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the City of Norwich indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.18-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
High	Medium	High	High	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

**The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality*

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The major problem areas in our community are along the Canasawacta Creek on the west and south sides of the City and the Chenango River on the east side of the City. Both areas have suffered from repetitive losses related to flooding, particularly in the last eight years. There's been damage to city infrastructure, including parks and the city pool, and also damage to dozens of houses. One property was bought out in a state buyout program after suffering unrepairable damage.
- In addition, the city's wastewater treatment plant, about a mile south of the city has suffered repetitive, and significant damage from flooding. In the latest flood in 2011, the plant suffered approximately \$800,000 in damages. This is the third major flood to impact the plant since 2005.
- The Perry Browne School is located in the Special Flood Hazard Area. While it has not suffered structural damages to date due to flooding, major flood events have threatened the structure and future risk to flooding is identified as a concern.
- There have been no injuries or loss of life in the City due to flooding in the past eight years.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- River areas in City of Norwich: need flood gauge restores at River Street/Route 23 bridge
- Anywhere along the Canasawacta Creek. Prior to the Kurt Beyer dam removal, flooding in the Plymouth St. area of Norwich - still a concern if blockage below town. Now flooding consistently in the lower S. Broad St. area of Norwich as well as Oxford.



- I think the Canasawacta Creek bed should be excavated to increase capacity. Dead trees along banks should be removed.
- City of Norwich water and wastewater plants
- Marconi Ave. where it meets Burr Ave. Always water in the road after a heavy rain. Near CDO workforce office as well is the absolute worst.
- South Broad Street near Prentice St has flooded consistently since the bridge icy McDonalds on South Broad Street was put in. The street floods in that area even with just a hard rainfall. Canasawacta creek has not been properly cleaned and in emergency situations, floods over its banks
- South Broad Street Creek area by Mc Donald's River Flooding east main street
- Most anything along the River
- Property along Canasawacta Creek
- S. Broad St., Norwich around McDonalds, Prentice St., E. Main St.
- County alerts should be made through Chenango County Scanner Nerds.

9.18.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.18-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
CNR-1	Upper Reservoir Dredging	Flood, Severe Storm	City of Norwich DPW, Emergency Management	Dredge the Upper Reservoir, to allow more water capacity, particularly during heavy rain and water flow times	No Progress	Cost	-	Continue as part of 2021-C. Norwich-002
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
CNR-2	Citywide Water and Sewer Line Survey	Flood, Severe Storm	City of Norwich DPW	Use special video cameras to explore potential problem areas in the City's water and sewer lines. This helps find problem areas before they become larger issues. It also ensures full capacity, particularly during flood events by making sure there is nothing blocking the lines.	Ongoing	Cost	-	This is part of the day-to-day operations of the City DPW
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
CNR-3	WWTP Flood Mitigation	Flood, Severe Storm	City of Norwich DPW	Install a stabilization pond to receive wastewater and then build a new structure on higher ground to incorporate the city's screw pumps for processing wastewater. Assure that the mitigation efforts for this critical facility address protection to the 500-year flood event or "worst damage scenario".	No progress	Cost	-	Continue as 2021-C. Norwich-001
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
CNR-4 (old CN-12)	Residential Floodproofing	Flood, Severe Storm	City of Norwich Code Enforcement,	Encourage residents to flood proof existing structures, particularly basements, and seek grants to provide	Ongoing	Cost	-	This is part of the day-to-day operations of the City OEM
						Level of Protection	-	
						Damages Avoided;	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
			Emergency Management	funding for residents to complete such work.		Evidence of Success		
CNR-5 (old CN-11)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above.	All Hazards	Chenango County, as supported by relevant local department leads	See Above.	Ongoing	Cost	-	This is part of the day-to-day operations of the City
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
CNR-6	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or acquisition/relocation to protect structures from future damage, with 13 repetitive loss properties as a priority when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option (in progress). Phase 2: Work with the property owners to implement selected action based on available funding and local match availability.							
	See above.	Flood, Severe Storm Wildfire, Severe Winter Storm	Engineering via NFIP FPA with NYS DHSES, FEMA support	See above.	Ongoing	Cost	-	This is part of the day-to-day operations of the City
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The City of Norwich has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- None Identified

Proposed Hazard Mitigation Initiatives for the Plan Update

The City of Norwich worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.18-15 summarizes the comprehensive-range of specific mitigation initiatives the City of Norwich would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.18-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.18-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-C. Norwich-001	WWTP Upgrades	1, 2, 3, 4, 6, 7	Flood, Severe Storm, Severe Winter Storm	<p>Problem: The existing screw pumps at the WWTP are partially underground, partially above ground and when the facility experiences flooding, the area that the screw pumps are encased in burn out and experiences damages. The City therefore has had to rent pumps to keep the facility operational; during large flood events, the facility has had to discharge partially treated water into the river.</p> <p>Solution: The City will replace the existing screw pumps with submersible screw pumps that are able to function underwater to alleviate shutdown of the facility and the need to discharge excess sewage into the river. This will help eliminate the need to shutdown the pumps at the facility which is the main issue and minimize additional discharge events, caused by flooding and excess water overtaking the facility.</p>	Yes ●	No	Short, To begin as soon as possible	Norwich DPW	High; A previous estimate was quoted around \$4 million	High, Minimizes additional sewage discharge and flood damages to WWTP facility	FEMA HMA, BRIC	High	SIP, NSP	PP, NR, SP
2021-C. Norwich-002	Flood Study for South End of City	All Goals	Flood, Severe Storm, Severe Winter Storm	<p>Problem: There has been repeated flooding of private residences and businesses along the south portion of the City. Previously residents have been displaced from their homes and many cannot afford flood insurance and pay for repairs out of pocket. Much of the flooding is basement flooding, and damages experienced to water heaters, furnaces, electric panels, etc. but do not qualify for first floor flooding assistance. Flooding comes from the creek but can be related to snow melt, ice jams, and heavy rains.</p> <p>Solution: This would be a two phase project to identify flood</p>	Yes ●	No	Short, To begin as soon as possible	Norwich DPW, support from Norwich Code Enforcement	Low to conduct flood study; Medium-High to implement findings	High, Goal to eliminate flood risk and property damages	Municipal budget to cover costs of flood study,	High	LPR, SIP	PR, SP, NR



Table 9.18-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				vulnerabilities and causes, and best solutions for the area to reduce damages. The first phase would be to contract an engineer to conduct the study and flood analysis. The City FPA will support the engineer in conducting the study. The city suggests that a possible solution would be to install a berm along the creek to reduce flood damages, however, will follow the recommendations of the engineering study. Once the study is complete, the City will implement the findings and apply to funding or other technical support as necessary.										
2021-C. Norwich-003	Outreach to RL property owners	1, 2, 3, 5, 7	Flood	Problem: There are 42 repetitive loss properties and 163 properties located within the 1% SFHA in the City. Solution: The City Floodplain Administrator will conduct outreach to homeowners who have experienced repetitive losses, or are living within the floodplain, and present options for structural mitigation or relocation. If there are enough interested parties, the City will support grant applications for flood mitigation of the interested properties, including project support and development.	No	No	Short, To conduct outreach as soon as possible	City of Norwich Code Enforcement	Low to conduct outreach	High, Goal to eliminate RLs and property damages	Municipal Budget, FEMA FMA	Medium	LPR, EAP	PR, PP, PI
2021-C. Norwich-004	Outreach to Critical Facility owners	1, 2, 3, 5, 7	Flood	Problem: There are numerous critical facilities, including major employers, and senior centers, located within the floodplain that have experienced damages during previous flooding events. Solution: The City Floodplain Administrator will conduct outreach to the property owners and present options for structural mitigation. If interested, the City will support grant	No	No	Short, To conduct outreach as soon as possible	City of Norwich Code Enforcement	Low to conduct outreach	High, Eliminates closures of essential facilities and ensures safety of senior residents	Municipal Budget, FEMA FMA	Medium	LPR, EAP	PR, PP, PI



Table 9.18-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				applications for flood mitigation of the interested properties, including project support and development.										

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.18-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-C. Norwich-001	WWTP Upgrades	1	1	1	1	1	1	0	0	0	1	1	1	1	1	11	High
2021-C. Norwich-002	Flood Study for South End of City	1	1	1	0	1	1	1	0	0	1	1	1	1	1	11	High
2021-C. Norwich-003	Outreach to RL property owners	1	1	1	1	0	0	0	0	0	1	0	1	1	1	8	Medium
2021-C. Norwich-004	Outreach to Critical Facility owners	1	1	1	1	0	0	0	0	0	1	0	1	1	1	8	Medium

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.18.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.18-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood	003, 004	001, 002	001, 002		002, 003, 004	001, 003, 004	003, 004	001, 002	001, 002	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001, 002	001, 002		002			002	002	
Severe Winter Storm		001, 002	001, 002		002			002	002	
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.18.9 Staff and Local Stakeholder Involvement in Annex Development

The City of Norwich followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many City departments, including: Emergency Management, the Fire Department, and Code Enforcement. The Emergency Management Officer represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership, Steering Committee, and supported the local planning process requirements 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.

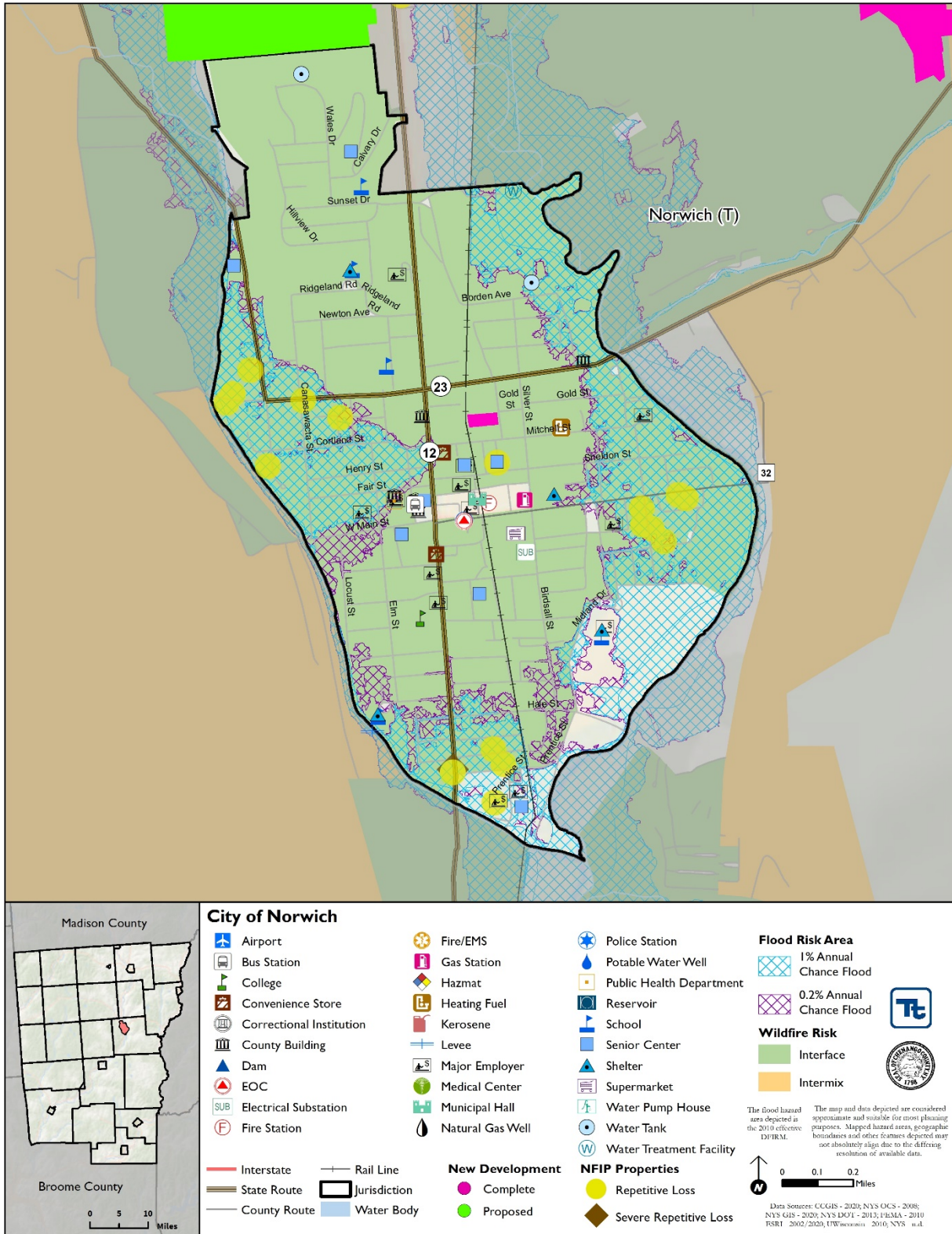
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.18.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the City of Norwich that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the City of Norwich has significant exposure. The map is illustrated below.



Figure 9.18-1. City of Norwich Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	2021-C. Norwich-001		
Project Number:	WWTP Upgrades		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	The existing screw pumps at the WWTP are partially underground, partially above ground and when the facility experiences flooding, the area that the screw pumps are enmeshed in burn out and experiences damages. The City therefore has had to rent pumps to keep the facility operational; during large flood events, the facility has had to discharge partially treated water into the river.		
Action or Project Intended for Implementation			
Description of the Solution:	The City will replace the existing screw pumps with submersible screw pumps that are able to function underwater to alleviate shutdown of the facility and the need to discharge excess sewage into the river. This will help eliminate the need to shutdown the pumps at the facility which is the main issue and minimize additional discharge events, caused by flooding and excess water overtaking the facility.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/> X	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/> X	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Minimizes additional sewage discharge and flood damages to WWTP facility
Useful Life:	50 years	Goals Met:	1, 2, 3, 4, 6, 7
Estimated Cost:	High \$4 million	Mitigation Action Type:	SIP, NSP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	1-2 years	Potential Funding Sources:	FEMA HMA, BRIC
Responsible Organization:	Norwich DPW	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate WWTP	N/A	No municipal land to relocate, would need to reroute sewer pipes, not cost effective
	Continue to use temporary pumps during floods to ensure operations	\$10,000/flood	Short term solution, not cost effective in long term, does not mitigate, climate change will increase flood risk and need for temporary pumps
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-C. Norwich-001	
Project Number:	WWTP Upgrades	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures clean water
Property Protection	1	
Cost-Effectiveness	1	Long-term solution
Technical	1	City DPW can support install of project
Political	1	
Legal	1	
Fiscal	0	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Norwich DPW
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	2021-C. Norwich-002		
Project Number:	Flood Study for South End of City		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	There has been repeated flooding of private residences and businesses along the south portion of the City. Previously residents have been displaced from their homes and many cannot afford flood insurance and pay for repairs out of pocket. Much of the flooding is basement flooding, and damages experienced to water heaters, furnaces, electric panels, etc. but do not qualify for first floor flooding assistance. Flooding comes from the creek but can be related to snow melt, ice jams, and heavy rains.		
Action or Project Intended for Implementation			
Description of the Solution:	This would be a two phase project to identify flood vulnerabilities and causes, and best solutions for the area to reduce damages. The first phase would be to contract an engineer to conduct the study and flood analysis. The City FPA will support the engineer in conducting the study. The city suggests that a possible solution would be to install a brim along the creek to reduce flood damages, however, will follow the recommendations of the engineering study. Once the study is complete, the City will implement the findings and apply to funding or other technical support as necessary.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Goal to eliminate flood risk and property damages in area
Useful Life:	99 years	Goals Met:	All Goals
Estimated Cost:	Low to conduct flood study; Medium-High to implement findings	Mitigation Action Type:	Phase 1: LPR; Phase 2: SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	To being as soon as possible
Estimated Time Required for Project Implementation:	6 months for flood study; 1-2 years to implement findings as funding is available	Potential Funding Sources:	Municipal budget to cover costs of flood study, FEMA BRIC or other to implement findings
Responsible Organization:	Norwich DPW, support from Norwich Code Enforcement	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Community Development
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate all properties and businesses	N/A	City loses large tax base, unfeasible
	Redirect the Chenango River and Canasawacta Creek away from development	N/A	Southern portion of City is located directly between waterbodies, unfeasible and not environmentally sound
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-C. Norwich-002	
Project Number:	Flood Study for South End of City	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Many RL properties and businesses are in this area
Property Protection	1	
Cost-Effectiveness	1	Flood study in Phase 1 will determine best course of action
Technical	0	City will need to hire an engineer
Political	1	
Legal	1	
Fiscal	1	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	Flooding, sever storms, snow melt, and ice jams cause flooding issues in this area
Timeline	1	To be completed within scope of HMP
Agency Champion	1	
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



9.19 Town of Norwich

This section presents the jurisdictional annex for the Town of Norwich. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Norwich's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.19.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Norwich's hazard mitigation plan primary and alternate points of contact.

Table 9.19-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Barry Christopherson, Superintendent of Highways 157 County Route 32A, Norwich, NY 13815 607-373-1188 bach5589@roadrunner.com	Stanley Foulds, Town Supervisor 157 County Route 32A, Norwich, NY 13815 607-337-2302 stan_supervisor@roadrunner.com
NFIP Floodplain Administrator	
Steven Fox/Chenango County Code Enforcement 5 Court Street, Norwich, NY 13815 607-337-1796 stevenfox@co.chenango.ny.us	

9.19.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 3,998.

The Town of Norwich is located in the approximate center of Chenango County. It has a total area of 42.1 square miles. The Chenango River and Canasawacta Creek flow southward thru the town and converge just south of the City of Norwich. Other smaller streams include Thompson Creek, Johnson Creek, Gilmour Brook and Ransford Creek. New State Route 12 goes north and south thru the town; New York State Highway 23 goes east and west thru the town. County Route 32 parallels NYS Route 12 on the east side of the Chenango River. Other County Roads include County Route 33, 34 and 10 A, and 36.

The Town of Norwich was named after Norwich, Connecticut. The first settlers arrived around 1788. The town was formed in 1793 from the Town of Union and Bainbridge. In 1806 the Towns of Pharsalia, Preston and Plymouth were formed out of town. In 1807 part of New Berlin and Columbus were formed. The City of Norwich was incorporated as a village in 1816.

The Town of Norwich is governed by a Town Supervisor and four Councilmen. This governing body will assume responsibility for adoption and implementation of this plan.

9.19.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.19-2 summarizes recent and expected future development trends, including major



residential/commercial development and major infrastructure development. Figure 9.19-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.19-2. Recent and Expected Future Development

Type of Development	2014		2015		2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)														
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	8	-	7	-	4	-	6	-	5	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	1	-	2	-	0	-	0	-	0	-	0	-
Total	8	0	8	0	6	0	6	0	5	0	0	-	0	-
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development					
Recent Major Development and Infrastructure from 2015 to Present														
Evans Solar	Energy		12MW		124.-1-1.1 124.-1-1.2		Wildfire Interface and Intermix Areas		Completed 2019					
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years														
Lindenthaller Solar	Energy		7MW		123.-1-6.61 123.-1-6.65		None 1-percent and 0.2-percent flood hazard area and Wildfire Interface Area		Construction scheduled to start 2020					
Tiffany Solar	Energy		5.5 MW		123.-1-7.1		1-percent and 0.2-percent flood hazard area		Construction scheduled to start 2020					

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.19.4 Capability Assessment

The Town of Norwich performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Information on National Flood Insurance Program (NFIP) compliance.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.



For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.19.4). The Town of Norwich identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Norwich and where hazard mitigation has been integrated.

Table 9.199-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Chenango County Code Enforcement	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 2006	Local	Local Planning Board	No	Yes	N/A
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
<ul style="list-style-type: none"> Town of Norwich, Subdivision Regulations have been enacted by the Norwich Town Board on September 11, 2006. These regulations are adopted for purposes that include to; To guide the future growth and development of the Town of Norwich in accordance with the Comprehensive Plan, if one exists; To help to ensure that the land to be subdivided shall be of such character that it can be used safely for the proposed purposes, without danger to health or peril from fire, flood, or other menace; To protect and conserve the value of land throughout the municipality and the value of buildings and improvements upon the land; To minimize the pollution of the Unadilla and Chenango Rivers, the streams, and ponds, to assure the adequacy of drainage facilities, to safeguard the water table, and to encourage the wise use and management of natural resources throughout the municipality in order to preserve the integrity, stability, and beauty of the community and the value of the land; and To provide for open spaces through the most efficient design and layout of the land, including the use of techniques such as clustering. Design Standards: Land to be subdivided shall be of such character that it can be used safely for the proposed purposes without danger to health or peril from fire, flood, or other menace and shall conform to the Official Map of the town and shall be in harmony with the Comprehensive Plan, if these tools exist; establish the preservation of all natural features that add value to 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
residential developments and to the community, such as large trees or groves, watercourses and falls, beaches, historic spots, vistas, and similar irreplaceable assets; subdivision design shall preserve, so far as possible, the natural terrain and natural watercourses, improvements and drainage areas; and Land subject to serious or regular flooding shall not be subdivided for residential occupancy or for such other uses as this may increase danger to life or property or aggravate the flood hazard, but such land may be used for such uses, subject to any zoning regulations, if any, or in such a way that the flood danger to this property and other upstream or downstream properties will not be increased and periodic or occasional inundation will not be a substantial threat to life or property.							
Stormwater Management Regulations	Yes	Subdivision Regulations	Local	NYSDEC permits required for any major construction projects	Yes	No	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System (SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	NA	NA
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	Yes	Site Plan Review and Subdivision Regulations	Local	Local Planning Board	No	Yes	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	Adopted 1987, Updated 10/11/2010	Local	Local Planning Board	No	Yes	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	?	Yes	NA	NA
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Adopted 4/1987, Amended 10/18/2010	Local, State, Federal	Administered by County Code Official under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential)	Yes	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated and non-residential)	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<p>Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. Adopted 1987</p> <ul style="list-style-type: none"> Local Law No. 1 of the year 2010. A local law Flood Damage Prevention as authorized by the New York State Constitution, Article IX, Section 2, and Environmental Conservation Law, Article 36 enacted by the Norwich Town Board on October 11, 2010. The Board of the Town of Norwich, Chenango County, finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Norwich, Chenango County, and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; control filling, grading, dredging and other development which may increase erosion or flood damages; regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; qualify and maintain for participation in the National Flood Insurance Program. The areas of special flood hazard for the Town of Norwich, Community Number 360162, are identified and defined on the following documents prepared by the Federal Emergency Management Agency and the applicable Flood Insurance Rate Map Panels whose effective date is November 26, 2010. The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	-	Yes	No	-
<p>Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.</p>							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Chenango County Emergency Office, Norwich Fire Department	Yes	N/A	N/A
<p>Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.</p>							
Climate Adaptation	No	NYS Executive Law, Article 75	Local	-	Yes	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	-	-	-	-	-	-
Comment: Five Year Moratorium on High Voltage DC Transmission Systems. Adopted 2007 - Local Law No. 1 of the year 2018, A local law, Abandoned Vehicles, Junked Vehicles and Vehicles Obstructing Traffic in an Emergency enacted by the Town Board of the Town of Norwich on November 13, 2018. Junk Yard Ordinance. Adopted 1980 Renewable Energy Systems Law, Local Law Number 1 of 2020. By means of this local law is the intent of the Town Board of the Town of Norwich to maintain the safety and general welfare of the Town of Norwich residents by taking advantage of a safe, abundant, renewable, and low-carbon emitting energy resource; decreasing the cost of energy to the owners of commercial and residential properties, including single-family houses and farm operations; increasing employment and business development in the region by furthering the installation and development of renewable energy systems.							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	-	Local	NYSDEC & Federal Agencies	No	No	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local	NYSDEC	No	No	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							



SECTION 9.19: Town of Norwich

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	Yes	NYCRR Part 390 Agricultural and Farmland Protection -	Local	Planning Board	Yes	No	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other (tourism, business dev, etc.)	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Chenango County Emergency Office, Norwich Fire Department	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	-	Local	Local OEM	Yes	No	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	No	-	Local	-	No	-	-
Comment:							
Other: Emergency Response Plan	No	-	Local	-	No	-	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

Table 9.19-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Site Plan Review, Town Planning Board
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Norwich.

Table 9.19-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Town of Norwich Planning Board, Theodore Guinn, Chairman
Mitigation Planning Committee	No	-



Resources	Available? (Yes or No)	Department/ Agency/Position
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/ Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	No	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Chenango County Planning Department
Engineers or professionals trained in building or infrastructure construction practices	Yes	Chenango County Code Enforcement
Planners or engineers with an understanding of natural hazards	Yes	Chenango County Planning Department
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	No	
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Chenango County Planning Department
Scientist familiar with natural hazards	Yes	Chenango County Soil & Water
NFIP Floodplain Administrator (FPA)	Yes	Chenango County Code Enforcement (currently Steve Fox)
Surveyor(s)	Yes	Chenango County Highway Department
Emergency Manager	Yes	Chenango County Emergency Management Office
Grant writer(s)	Yes	Chenango County Planning Department; Cornell Cooperative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Norwich.

Table 9.19-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements 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	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	Yes



Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Norwich.

Table 9.19-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	Yes
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Yes TV and Radio; Hyper-Reach and Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Yes
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Norwich.

Table 9.19-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable
NP Not participating
- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.



Table 9.19-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Norwich.

Table 9.19-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Norwich	13	23	\$1,709,721	8	-	3

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Norwich has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.



Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Norwich has completed Community Assistance Visits (CAV), with the most recent visit completed in 2019.

Regulatory

The Town of Norwich Flood Damage Prevention Ordinance (FDPO) was last updated on October 18, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

- **Municipal Budgets:** The Town shall continue to support their on-going program of tree pruning within the Town Highway Rights of Way to protect against severe storm and severe winter storm. While not eligible under the Federal mitigation grant funding programs, the Town is looking to purchase a chipper to aid in storm clean-up.
- **Stream Corridor Inspections:** Develop and implement an annual stream corridor inspection program to identify areas that require de-snagging, bank stabilization, etc.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

NY-12 runs north/south through the Town, and NY-23 runs east/west through the northern portion of the Town. NY-8 can be utilized as an evacuation route for residents in the southeastern part of the Town. County routes 33, 36, and 10A can also be used for evacuation, however due to the changing nature of road conditions, residents should refer to the Notify Chenango Hyper Reach program for up-to-date conditions and best routes.

Sheltering

The following are identified as shelter locations by the American Red Cross National Sheltering Survey, but for current openings and availability, residents should refer to the Town Website or Notify Chenango Program for best locations:

- Emmanuel Episcopal Church
- First Baptist Church of Norwich
- DCMO/BOCES Occupational Center
- Norwich High School



- Norwich Middle School
- Saint Bartholomew Church
- Stanford-Gibson Primary School

Temporary Housing

The Town of Norwich has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of Norwich did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.19.5 Hazard Event History Specific to the Town of Norwich

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Norwich's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.19-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.19-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
March 14-15, 2017	Winter Storm Stella (DRNY-4322)	Yes	Heavy winter storm	No damage to infrastructure property
10/31/19-11/1/19	Heavy Rain (DRNY-4472)	Yes	Heavy rainfall resulted in culvert failure Wightman Road	\$2000 spent in 2019 Work is ongoing

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.19.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Norwich's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to



provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.19-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Save-A-Lot	Supermarket	Yes	Yes	2021-T. Norwich-004
Water Booster Substation	Potable Water Facility	Yes	Yes	2021-T. Norwich-004
Potable Water Well	Potable Water Facility	Yes	Yes	2021-T. Norwich-004
Potable Water Well	Potable Water Facility	Yes	Yes	2021-T. Norwich-004
Norwich Pharmaceuticals, Inc.	HazMat	No	Yes	2021-T. Norwich-004

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree



of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Norwich. The Town of Norwich has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Norwich indicated the following:

- The Town indicated that Severe Winter Storm is a high concern for the Town due to frequency of past events and likelihood of winter storm events in the Upstate NY Region.
- The Town indicated that flooding was of medium risk due to their existing capabilities.

Table 9.19-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood*	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm*	Wildfire
Medium	Medium	Medium	Medium	Medium	Medium	Medium	High	High	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The Town indicates that the Thompson Creek, Canasawacta Creek, and Gilmour Brook are areas that have considerable flood risk. Further, these areas are believed to have limited NFIP coverage.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Flood prone areas: Prentice Street, River Street, Barnes/Oleandorf Pl
- Prentice Street in Norwich floods if we get more than an inch of rain. My basement floods if we get two inches of rain.
- Flooding Town of Norwich along Chenango River
- Prentice St, Hayward Ave, Jones Ave all flooded in 2019. There has been no cause of that flood identified.
- Power is interrupted frequently.

9.19.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.19-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TN-1 (former TN-1 and -2)	Upgrade stormwater management infrastructure, and/or retrofit flood-prone roadways that are deemed critical to the Town and Region. This will involve up-grading culvert sizes (typically when they require replacement), and/or elevating sections of roadway as appropriate. Specifically identified are sections of the following roadways that have been damaged during prior flood events: <ul style="list-style-type: none">• Dan Main Hill Road• Lyon Brook Road• Lawton-Scheer Road• Oxford Road• Miller Shumway Hill Road• Mary Windsor Road• Wightman Road• Graf Road• Beachwood Ave• Ronsyl Drive• Meadow View Heights• Wells Road• Pratt Road• Warner Road• Lower Ravine Road As efforts to implement specific projects are commenced, the Town may develop FEMA Action Worksheets for those projects, particularly if Federal grant funding is being sought.							
	See above	Flooding, Severe Storms	Town of Norwich Highway Department; Chenango County Highway Department, Chenango County Soil & Water	See above	In Progress	Cost	-	The Town will continue roadway and culvert upgrades on an ongoing basis. See 2021-T. Norwich-001 and 2021-T. Norwich-002 for more information.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TN-2 (former TN-5)	Annual inspection of all waterways going through the Town	Flood, Severe Storm	Town of Norwich Highway Department; with the support of NYSDEC and Chenango	Remove debris, clean and stabilize the banks as needed.	Ongoing Capability	Cost	-	This is an ongoing capability of the Highway Department and debris removal is conducted as needed.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
			County SWCD					
TN-3 (former TN-6)	Promote and support non-structural flood hazard mitigation alternatives	Flood, Severe Storm	Norwich Town Board; support from NYSOEM and FEMA	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL) and Severe Repetitive Loss (SRL), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be funding, benefits versus cost and willing participation of property owners. Specifically identified is the residential SRL property on Highway 320, and the Chenango Memorial Hospital RL property at the corner of Rt. 12 and 320.	Ongoing	Cost	-	The Town continues to support flood mitigation for repetitive loss properties and properties within the floodplain. See 2021-T. Norwich-003 for more information.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TN-4	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
See above	All Hazards	Chenango County, as supported by	See above	Ongoing Capability	Cost	-	Support of federal, county, and state programming is part of the Town’s daily operations.	
					Level of Protection	-		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
			relevant local department leads,			Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Norwich has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- None Identified

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Norwich worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.19-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Norwich would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.19-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.19-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Norwich-001	Lower Ravine Rd Culvert	1, 2, 4, 6, 7	Flood, Severe Storm, Severe Winter Storm	Problem: The existing culvert pipes on Lower Ravine Rd are rusted and failing, resulting in flood damages and stormwater backup. Solution: There are currently 7 culverts along this road that are all undersized, ranging from 18" to 36". The Town of Norwich Highway Department would like to increase the size of all culverts to 36" allowing for improved waterflow across roads and reduced flood damages. Lower Ravine Road is an essential road, connecting to an area of development including Walmart and other stores, and connects to NY-12, which is an identified evacuation route.	No	No	Short, To begin upgrades as soon as possible	Norwich Highway Department	Medium, approximately \$4,000 per culvert including materials and labor	High	FEMA HMA, Municipal Budget	High	SIP	SP
2021-T. Norwich-002	Crandall Street Culvert	1, 2, 4, 6, 7	Flood, Severe Storm, Severe Winter Storm	Problem: The current culvert system on Crandall street consists of 3 old metal pipes or 15' concrete pipes that are failing and deteriorating. Solution: The Town of Norwich Highway Department will work to replace the culverts with ones with greater capacity to handle water flow. The Town will replace all existing pipes with 36" pipes to prevent failure of the culvert and eliminate the need for road closures and safe passage for residents in the area.	No	No	Short, To begin upgrades as soon as possible	Norwich Highway Department	Medium, approximately \$4,000 per culvert including materials and labor	High	FEMA HMA, Municipal Budget	High	SIP	SP
2021-T. Norwich-003	Repetitive Loss Property Outreach	1, 2, 3, 4, 5	Flood	Problem: There are 8 repetitive loss properties, and 3 properties located within the floodplain within the Town. Solution: The Town of Norwich, supported by Chenango County Code Enforcement, will work to notify all property owners with residences within the floodplain and support flood mitigation projects at these	No	No	Short	Town of Norwich, support from Chenango County Code Enforcement	Low to support outreach	High	Municipal Budget	Medium	LPR, EAP	PR, PP, PI



Table 9.19-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				addresses. If interested, the Town will support grant applications, project development, and administrative tasks related to flood mitigation projects including retrofitting, hardening, and elevation as necessary.										
2021-T. Norwich-004	Critical Facility Flood Mitigation	1, 2, 3, 5, 6, 7	Flood	Problem: There are multiple critical facilities located within the floodplain including private businesses, as well as the Water Booster Substation and two potable water wells. Solution: The Town will conduct outreach to private business owners within the floodplain and provide support for structural mitigation projects including information and grant administration. The Town will also address flooding at the Water Pump Station and Water wells by determining causes of flooding and past damages, and working with an engineer and the Water Department to determine best course of action and implementing the appropriate solutions to eliminate losses and ensure safe water.	Yes ●	No	Short	Town of Norwich, support from Chenango County Code Enforcement and Norwich Water Department	Low to support outreach	High	Municipal Budget	Medium	LPR, EAP	PR, PP, PI
2021-T. Norwich-005	High Hazard Dam Outreach	1, 2, 3, 4, 5, 7	Flood	Problem: The Town of Norwich owns two "high hazard" Class C dams (Norwich Reservoir #1 Dam and Norwich Reservoir #2 Dam). Solution: In accordance with NYSDEC Dam Safety guidelines, the Town of Norwich will support annual inspection and update of the dams' Emergency Action Plans (EAPs) by engineers, and supported NYSDEC as necessary. If increased significant risk to the downstream areas is found, the Town will work with	Yes	No	Short, within 4 years	Town of Norwich	Low	High	Municipal Budget	High	EAP	PR



Table 9.19-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				engineers, Chenango County, and NYSDEC Dam Safety to develop a plan to update and improve the conditions of the dam.										
2021-T. Norwich-006	Glenn Lake Dam EAP	1, 2, 3, 4, 5, 7	Flood	<p>Problem: The privately-owned Glenn Lake Dam is classified as a "high hazard" Class C Dam, and has not had an updated EAP since 2012.</p> <p>Solution: The Town of Norwich will conduct outreach to the dam owner about the condition of the dam and potential risks posed by a dam failure and support an inspection plan of the dam by an engineer in accordance with the existing EAP and NYSDEC Dam Safety guidelines. The Town will aid in the development of an updated EAP as needed. If updates have been completed on the dam, the Town will request an inspection by NYSDEC to reclassify the dam.</p>	Yes	No	Short, within 5 years	Town of Norwich	Low	High	Municipal Budget	High	EAP	PR

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation

Cost:


The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.



Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- *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 manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NSP)* – These are actions that minimize damage and losses, and also 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

CRS Category:

- *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 also 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 9.19-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Norwich-001	Lower Ravine Rd Culvert	1	1	1	1	1	1	1	0	0	1	1	1	1	1	12	High
2021-T. Norwich-002	Crandall Street Culvert	1	1	1	1	1	1	1	0	0	1	1	1	1	1	12	High
2021-T. Norwich-003	Repetitive Loss Property Outreach	1	1	1	1	0	0	1	0	0	1	0	1	0	1	8	Medium
2021-T. Norwich-004	Critical Facility Flood Mitigation	1	1	1	1	0	0	1	0	0	1	0	1	1	1	9	Medium
2021-T. Norwich-005	High Hazard Dam Outreach	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High
2021-T. Norwich-006	Glenn Lake Dam EAP	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.19.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.19-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood	003, 004	001, 002		003, 004, 005, 006	003, 004, 005, 006	003, 004	003, 004		001, 002	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm	003, 004	001, 002		003, 004	003, 004	003, 004	003, 004		001, 002	
Severe Winter Storm										
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.19.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Norwich followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Highway Department and Supervisor's Office. The Highway Superintendent represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

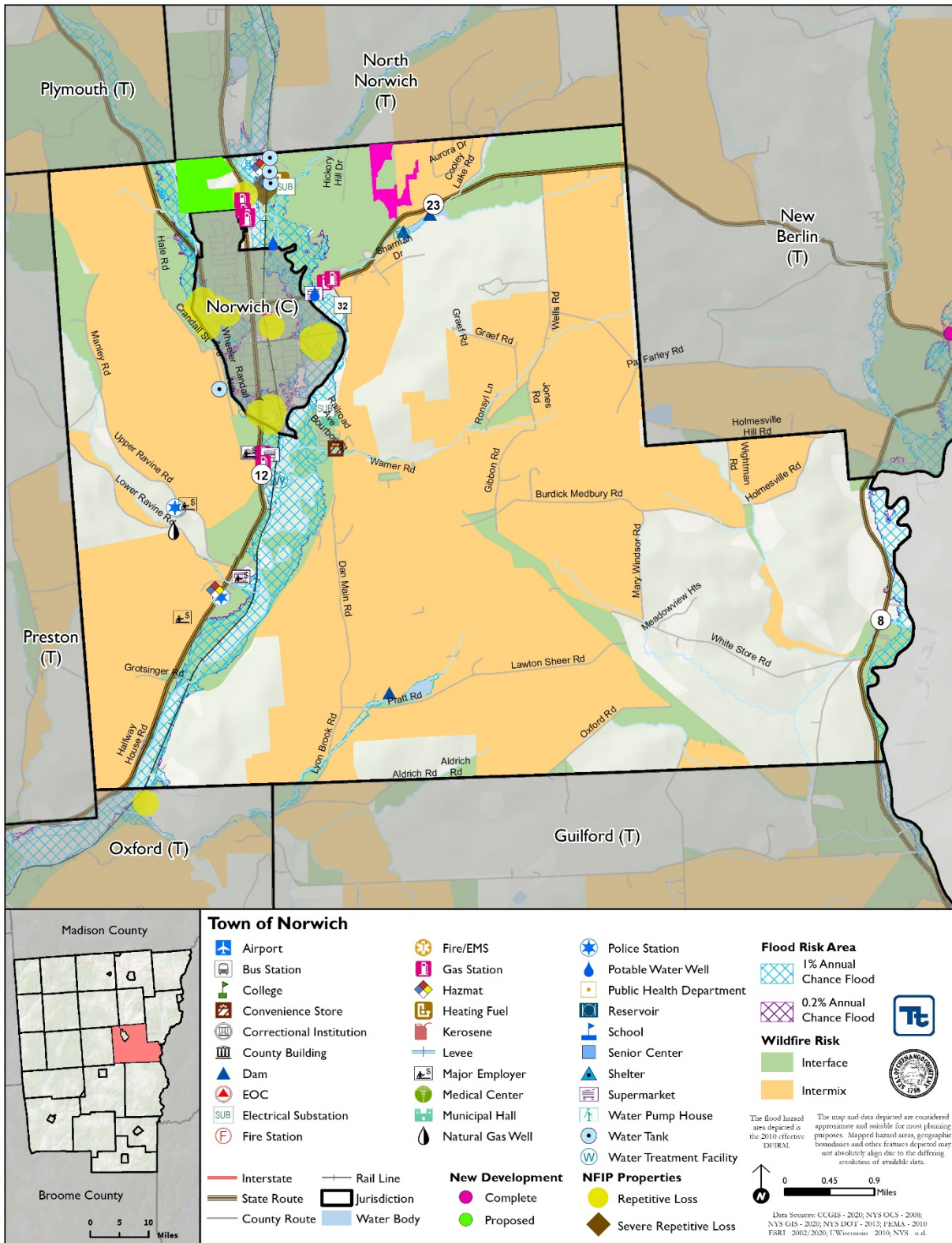
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.19.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Norwich that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Norwich has significant exposure. The map is illustrated below.



Figure 9.19-1. Town of Norwich Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	2021-T. Norwich-001		
Project Number:	Lower Ravine Rd Culvert		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	The existing culvert pipes on Lower Ravine Rd are rusted and failing, resulting in flood damages and stormwater backup.		
Action or Project Intended for Implementation			
Description of the Solution:	There are currently 7 culverts along this road that are all undersized, ranging from 18" to 36". The Town of Norwich Highway Department would like to increase the size of all culverts to 36" allowing for improved waterflow across roads and reduced flood damages. Lower Ravine Road is an essential road, connecting to an area of development including Walmart and other stores, and connects to NY-12, which is an identified evacuation route.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100 year flood	Estimated Benefits (losses avoided):	Reduces flood risk and eliminates excess road closures
Useful Life:	50 years	Goals Met:	1, 2, 4, 6, 7
Estimated Cost:	Medium, approximated \$4,000/culvert	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	As soon as possible
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	FEMA HMA, Municipal Budget
Responsible Organization:	Norwich Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Replace some culverts	\$4,000/culvert	Only solves part of issue, could exacerbate flooding or disrupt water flow
	Elevate roadway	\$1M	Not cost effective, would disrupt traffic for an extended period on an essential roadway
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. Norwich-001	
Project Number:	Lower Ravine Rd Culvert	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	Yes
Technical	1	Town can oversee replacements
Political	1	
Legal	1	Town has jurisdiction
Fiscal	1	
Environmental	0	No known issues
Social	0	
Administrative	1	
Multi-Hazard	1	Flood, severe storms, winter storms have all caused flooding issues
Timeline	1	
Agency Champion	1	Highway Department
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	2021-T. Norwich-002		
Project Number:	Crandall Street Culvert		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	The current culvert system on Crandall street consists of 3 old metal pipes or 15' concrete pipes that are failing and deteriorating.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Norwich Highway Department will work to replace the culverts with ones with greater capacity to handle water flow. The Town will replace all existing pipes with 36" pipes to prevent failure of the culvert and eliminate the need for road closures and safe passage for residents in the area.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100 year flood	Estimated Benefits (losses avoided):	Reduces flood risk and eliminates excess road closures
Useful Life:	50 years	Goals Met:	1, 2, 4, 6, 7
Estimated Cost:	Medium, approximated \$4,000/culvert	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	As soon as possible
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	FEMA HMA, Municipal Budget
Responsible Organization:	Norwich Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Replace some culverts	\$4,000/culvert	Only solves part of issue, could exacerbate flooding or disrupt water flow
	Elevate roadway	\$1M	Not cost effective, would disrupt traffic for an extended period on an essential roadway
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. Norwich-002	
Project Number:	Crandall Street Culvert	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	Yes
Technical	1	Town can oversee replacements
Political	1	
Legal	1	Town has jurisdiction
Fiscal	1	
Environmental	0	No known issues
Social	0	
Administrative	1	
Multi-Hazard	1	Flood, severe storms, winter storms have all caused flooding issues
Timeline	1	
Agency Champion	1	Highway Department
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



9.20 Town of Otselic

This section presents the jurisdictional annex for the Town of Otselic. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the TOWN participated in the planning process; an assessment of the Town of Otselic's risk and vulnerability; the different capabilities utilized in the TOWN; and an action plan that will be implemented to achieve a more resilient community.

9.20.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Otselic's hazard mitigation plan primary and alternate points of contact.

Table 9.20-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Marjorie Davis, Town Supervisor 133 County Road 13 S Otselic 13155 315-653-7201 otselicsupervisor@frontier.com	Louise Perry, Town Clerk 133 County Road 13 S Otselic 13155 315-653-7201 otselicclerk@frontiernet.net
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.20.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 1,054.

The Town of Otselic is located in the northwest section of Chenango County. It is part of the Allegheny Plateau Region, hilly terrain with a river valley flood plain.

The first settlers in the Town of Otselic arrived around 1800. The town was formed from the Town of German in 1817.

The Town of Otselic is governed by an elected five member Town Board. The Town Supervisor is a presiding board member on the County Board of Supervisors. This governing body will assume responsibility for adoption and implementation of this plan.

9.20.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.20-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.20-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

**Table 9.20-2. Recent and Expected Future Development**

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.20.4 Capability Assessment

The Town of Otselic performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.20.4). The Town of Otselic identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Otselic and where hazard mitigation has been integrated.



Table 9.20-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local, State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivisions	Yes	Adopted 1989	Local	Local Planning Board	No	No	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management	Yes	Subdivision Regulations	Local, State	NYSDEC permits required for any major construction projects	Yes	No	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	Yes	Subdivision and Site Plan	Local	Local Planning Board	No	No	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a,	Local	Local Planning Board	No	No	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
		Town Law s. 247a, Village Law s. 7-725a					
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	-	Yes	N/A	/NA
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	Adopted 1983, Updated 10/19/2010	Federal, State, Local	County Division of Code Enforcement	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
<p>Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> Local Law No. 1 of the year 2010, A local law Flood Damage Prevention Law enacted by the Town Board of the Town of Otselic. The Town Board of the Town of Otselic finds that the potential and/or actual damages from flooding an erosion may be a problem to the residents of the Town of Otselic and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program. The areas of special flood hazard for the Town of Otselic, Community Number 361090, are identified and defined on the documents prepared by the Federal Emergency Management Agency, Flood Insurance Rate Map Panel Numbers applicable to the Town whose effective date is, November 26, 2010. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4)	Yes	EPA Phase II Stormwater Rule	Federal	-	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Otselic Fire District/Chenango County EMS	Yes	N/A	N/A



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change	No	-	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Other	Yes	-	-	-	-	-	-
Comment: <ul style="list-style-type: none"> • Junkyard Regulations. Adopted 2002 • Sanitary Code. Adopted 9/4/1981 • Refuse Disposal. Adopted 1989 • Mobile Home Ordinance. Adopted 2003 							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	Not indicated	State	NYSDEC permit and Federal Agencies	No	No	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local, State	NYSDEC	No	Yes	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	-	-
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	Yes	NYCRR Part 390 Agricultural and Farmland Protection -	Local	Farmland Protection Board at County	Yes	No	-
Comment:							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes County	NYS Executive Law, Article 2B	Local	Local OEM	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes at County	Not Indicated	Local	County OEM	Yes	No	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	-	-	2021-Chenango County-001



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment:							
Continuity of Operations Plan	Yes at County	-	Local	-	No	No	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	-	Local	-	No	No	-
Comment: • Emergency Response Plan. State Mandated.							

Table 9.20-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes County Planning/Code Enforcement
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Otselic.

Table 9.20-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	Fire Department with all neighboring



Resources	Available? (Yes or No)	Department/ Agency/Position
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	Yes	County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	County NFIP Administrator
Surveyor(s)	Yes	County Highway Department
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Otselic Fire Department
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Otselic.

Table 9.20-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements 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	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Otselic.



Table 9.20-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Town Clerk
Personnel skilled or trained in website development?	No Website
Hazard mitigation information available on your website; if yes, describe	No Website
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes, on Facebook
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Fire Department has electronic sign to display messages and information
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Otselic.

Table 9.20-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.20-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium



Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Otselic.

Table 9.20-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Otselic	2	3	\$10,535	0	-	2

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.



Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Otselic has not completed any Community Assistance Visits (CAV).

Regulatory

The Town of Otselic Flood Damage Prevention Ordinance (FDPO) was last updated on October 19, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

Floodplain Management: Control flooding along the banks of the Otselic River by reinforcing the banks, divert the water flow to slow or prevent erosion, as directed by NYSDEC. Prevention and maintenance will maintain the integrity of the Otselic River.

- **Floodplain Management/Infrastructure Protection:** Enhance Stormwater Management by retrofitting existing culverts by increasing the size and capacity of culverts in the flood prone areas, especially heavy traffic areas, Stage Road, Church Rd specifically.
- **Floodplain and Beaver Dam Management:** The Town has an ongoing program to monitor beaver dam problem areas, which includes the cleaning of blocked sluices and ditches to minimize localized flooding, particularly in the small streams along the Gray Road, Clarence Church Road and Stage Road.
- **Floodplain Management:** Consider non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, such as acquisition/relocation or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.
- **Floodplain Management/Infrastructure Protection:** Retrofit flood-prone roadways that are critical to infrastructure by installing larger culverts and raising the elevation of the roads, especially in portions of Reit Road, Stage Road, and Gray Road.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

SR-80 and SR-26 are the main evacuation routes within the Town, however depending on road conditions, residents should consult the Chenango County Emergency Management Website for up-to-date information and best routes.



Sheltering

Otselic Valley Central School getting generator in Fall 2020 and can be used as a heating/cooling center.

Temporary Housing

School has large parking lot but no hookups for power or sewage.

Permanent Housing

While the Town of Otselic did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.20.5 Hazard Event History Specific to the Town of Otselic

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Otselic's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.20-11 provides details regarding municipal-specific loss and damages the TOWN experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.20-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
October 7, 2020	Thunderstorm Wind	No	A dynamic upper level shortwave and a cold frontal boundary sparked numerous thunderstorms during the afternoon of the 7th across Central New York. Many of these storms became severe and produced widespread tree and powerline damage across the area.	Strong thunderstorm winds brought down a tree, blocking a roadway. An estimated \$5,000 in property damages were reported in the Town.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.20.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Otselic's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.





- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.20-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Gladding Braided Products LLC	Major Employer	Yes	Yes	2021-T. Otselic-003

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Cattaraugus as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Otselic. The Town of Otselic has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Otselic indicated the following:

- Agreement with calculated rankings – no changes made.

**Table 9.20-13. Hazard Ranking Input**

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Whole town has poor cell phone/internet service.
- No backup well – working with Water Department to get upgrades/repairs

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- The biggest threat we experience is flash flooding when large amount of rain falls in a short period of time. We also experience wind damage, usually during those time of extreme storms. Our highway crew is diligent in keeping culvert clear and removing trees that are potential hazards. They work to keep highways properly crowned; ditches cleared and culverts and bridges safe.

9.20.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.20-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TO-1 (former TO-1)	Control flooding along banks of the Otselic River	Flood, Severe Storms	Town of Otselic Highway Department; NYSDEC, CC. SWCD; Fish & Wildlife	Reinforcing the banks, divert the water flow to slow or prevent erosion, as directed by NYSDEC. Prevention and maintenance will maintain the integrity of the Otselic River.	Ongoing Capability	Cost	-	The Town continues to follow NYSDEC recommendations for streambank stabilization and erosion control.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TO-2 (former TO-2 and TO-5)	Stormwater Management Upgrades: Upgrade stormwater management infrastructure, and/or retrofit flood-prone roadways that are deemed critical to the Town and Region. This will involve up-grading culvert sizes when they require replacement, and/or elevating sections of roadway as appropriate. Specifically identified are sections of the following roadways that have been damaged during prior flood events: <ul style="list-style-type: none">• Stage Road• Church Road• Reit Road As efforts to implement specific projects are commenced, the Town may develop FEMA Action Worksheets for those projects, particularly if Federal grant funding is being sought.							
	See above	Flooding, Severe Storms	Town of Otselic Highway Department; Chenango County Highway Department, Chenango County Soil & Water	See above	Ongoing Capability	Cost		The Town continues to upgrade infrastructure and culverts as necessary.
						Level of Protection		
TO-3 (former TO-3)	Beaver Dam Monitoring and Control	Flood, Severe Storm	Municipal DPW; support from NYSDEC	Manage flooding caused by beaver dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in the hilly wetland areas of the town. Flooding has resulted from the small streams along the Gray Road, Clarence Church Road and Stage Road	Ongoing Capability	Cost	-	The Town continues to follow NYSDEC recommendations for beaver dam monitoring.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				often creating hazardous conditions.				
TO-4 (former TO-4, -5)	Promote and support non-structural flood hazard mitigation alternatives	Flooding, Severe Storms	Town Council; with support from NYSOEM and FEMA	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, such as acquisition/relocation or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.	Ongoing Capability	Cost	-	The Town continues supports flood hazard mitigation for property owners. See Mitigation Action # 2021-T. Otselic-003.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TO-5 (former TO-6 and TO-7)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification. <ul style="list-style-type: none">Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	The Town continues to support initiatives led by County, State and Federal sources to enhance hazard mitigation capabilities.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Otselic has not identified any mitigation projects or initiatives apart from those included in the in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Otselic worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.20-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Otselic would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.20-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.20-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Otselic-001	South Otselic Water District Upgrades	1, 2, 3, 4, 6, 7	Flood, Severe Storm, Severe Winter Storm	Problem: The South Otselic Water District is an aging system with a number of issues. The main water source has previously been affected by storm water events. Solution: The South Otselic Water District, with County Environmental Health Support, will work to protect the wellheads from future damages. Due to their proximity to the SFHA and the Otselic River, the water system has experienced damages due to flooding and severe storms and the wellheads will need to be raised to reduce impacts from storms and decontamination. The Water Main is also aging and damaged from storm events and will need to be replaced.	Yes	No	Within 5 years	South Otselic Water District; County Environmental Health	\$3 Million including water main replacement	High; ensures safe drinking water	FEMA BRIC	High	SIP	SP
2021-T. Otselic-002	South Otselic Water District Emergency Generator	1, 2, 3, 4, 6, 7	All hazards	Problem: Emergency Monitoring and power supply are an issue in the South Otselic Water District. Solution: The Town of Otselic will purchase and install an emergency generator to ensure water supply during hazard events. The Water District will also work to identify needs for improved telemetry and emergency monitoring of the wells.	Yes	No	Within 5 years	South Otselic Water District; County Environmental Health	\$30,000	High; ensures safe drinking water	FEMA BRIC	High	SIP	ES
2021-T. Otselic-003	Critical Facility Outreach	2, 3, 4, 5	Flood	Problem: Gladding Braided Products LLC has been identified as a major employer within the Town and is located within the SHFA. Solution: The Town will conduct outreach to the owners and inform the business of fold hazard mitigation alternatives and support any grants or relocation by the property owners.	Yes 💧	No	Short	Town of Otselic	Low	High	Municipal Budget	Medium	EAP	PI

Notes:



Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.20-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Otselic-001	South Otselic Water District Upgrades	1	1	1	0	1	1	0	0	1	1	1	1	1	1	11	High
2021-T. Otselic-002	South Otselic Water District Emergency Generator	1	1	1	0	1	1	0	0	1	1	1	1	1	1	11	High
2021-T. Otselic-003	Critical Facility Outreach	1	1	1	0	0	0	1	0	1	1	0	1	0	1	8	Medium

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.20.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.20-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak		002								002
Drought		002								002
Extreme Temperatures		002								002
Flood		001, 002		003			003		001	002
Harmful Algal Bloom		002								002
Invasive Species		002								002
Natural Gas		002								002
Severe Storm		001, 002							001	002
Severe Winter Storm		001, 002							001	002
Wildfire		002								002

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.20.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Otselic followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many TOWN departments, including: The Supervisor's Office, Town Clerk, and Town Board. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

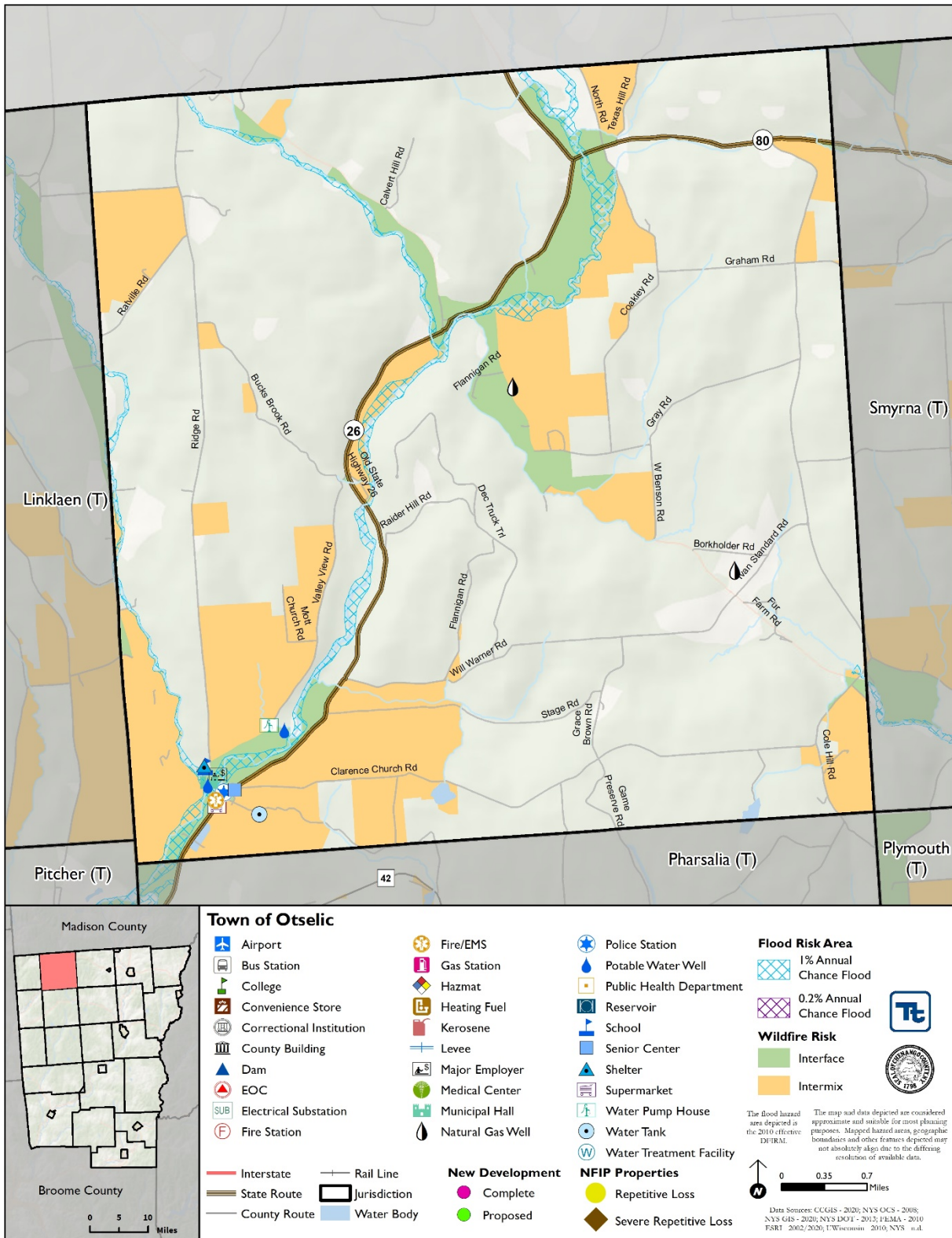
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.20.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Otselic that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Otselic has significant exposure. The map is illustrated below.



Figure 9.20-1. Town of Otselic Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	South Otselic Water District Upgrades		
Project Number:	2021-T. Otselic-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	The South Otselic Water District is an aging system with a number of issues. The main water source has previously been affected by storm water events.		
Action or Project Intended for Implementation			
Description of the Solution:	The South Otselic Water District, with County Environmental Health Support, will work to protect the wellheads from future damages. Due to their proximity to the SFHA and the Otselic River, the water system has experienced damages due to flooding and severe storms and the wellheads will need to be raised to reduce impacts from storms and decontamination. The Water Main is also aging and damaged from storm events and will need to be replaced.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	High; ensures safe drinking water
Useful Life:	99 years	Goals Met:	1, 2, 3, 4, 6, 7
Estimated Cost:	\$3 Million including water main replacement	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	Within 5 years	Potential Funding Sources:	FEMA BRIC
Responsible Organization:	South Otselic Water District; County Environmental Health	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Capital Development
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Wellhead protection only	\$600,000 (est.)	Reduces contamination at source but water main is still issue
	Water main replacement only	\$2 Million	Ensures safe distribution of water but could be contamination at source. Both are necessary
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	South Otselic Water District Upgrades	
Project Number:	2021-T. Otselic-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures safe drinking water
Property Protection	1	Prevents damages to water system
Cost-Effectiveness	1	
Technical	0	Would need engineering support
Political	1	
Legal	1	
Fiscal	0	
Environmental	0	No environmental impacts anticipated
Social	1	Residents want clean safe water
Administrative	1	
Multi-Hazard	1	Flooding, sever storms, winter storms
Timeline	1	Could be completed within scope of HMP
Agency Champion	1	County Environmental Health
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	South Otselic Water District Emergency Generator		
Project Number:	2021-T. Otselic-002		
Risk / Vulnerability			
Hazard(s) of Concern:	All hazards		
Description of the Problem:	Emergency Monitoring and power supply are an issue in the South Otselic Water District.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Otselic will purchase and install an emergency generator to ensure water supply during hazard events. The Water District will also work to identify needs for improved telemetry and emergency monitoring of the wells.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	High; ensures safe drinking water
Useful Life:	30 years	Goals Met:	1, 2, 3, 4, 6, 7
Estimated Cost:	\$30,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA BRIC
Responsible Organization:	South Otselic Water District; County Environmental Health	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning; Capital Development
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Install solar panels	\$500,000	Not cost-effective, weather dependent
	Hydroelectricity from Otselic River	N/A	Not cost-effective, unfeasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	South Otselic Water District Emergency Generator	
Project Number:	2021-T. Otselic-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures safe drinking water
Property Protection	1	
Cost-Effectiveness	1	
Technical	0	
Political	1	
Legal	1	Town has jurisdiction
Fiscal	0	
Environmental	0	No adverse impacts
Social	1	Residents would support
Administrative	1	
Multi-Hazard	1	All hazards can cause power losses
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



9.21 Town of Oxford

This section presents the jurisdictional annex for the Town of Oxford. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Oxford's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.21.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Oxford's hazard mitigation plan primary and alternate points of contact.

Table 9.21-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Roger Barrows Jr., Planning Board 3722 St. Hwy 220, Oxford, NY (607) 952-6025 rogerbarrowsjr@gmail.com	Paul Romahn, Planning Board 2081 County Road 3, Oxford, NY (607) 745-7081 hotelcheap@hotmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.21.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 2,451.

The Town of Oxford is centrally located in Chenango County. It is bordered on the east by the Town of Guilford, the west by the Town of Smithville and a portion of the Town of Greene, south the Town of Coventry and north by the Towns of Preston and Norwich.

The town is within the former realm of the Oneida and Tuscarora nations. A tract of land in the town was purchased by Benjamin Hovey, form Oxford, Massachusetts, and he became the first settler in 1790. The Town of Oxford was founded in 1793 from the Town of Bainbridge and the Town of Union (now in Broome County). Oxford lost some of its territory when the Town of Guilford was created in 1813 and the Town of Coventry was formed in 1843. The former Chenango Canal (1837) passed through the town. Railroad service began in 1870.

The Town of Oxford is governed by an elected five member Town Board composed of a Town Supervisor, who also represents the town at the County Board of Supervisors, and four (4) Council members. This governing body will assume responsibility for adoption and implementation of this plan.

9.21.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.21-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.21-1 at the end of this



annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.21-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.21.4 Capability Assessment

The Town of Oxford performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.21.4). The Town of Oxford identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.



Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Oxford and where hazard mitigation has been integrated.

Table 9.21-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local, State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	Yes	Adopted 1973, Updated 2007, & 2015	Local	Local Zoning Officer	No	Yes	N/A
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level <ul style="list-style-type: none"> Town of Oxford Zoning Ordinance, Local Law #1-2015, enacted by the Town Board of Oxford. The provisions of this ordinance shall be held to be the minimum requirements adopted to promote the health, safety, and general welfare of this community. Such requirements are deemed necessary for the following purposes: Promote Orderly Development; Regulate Intensity of Use; Regulate Location of Buildings; Establish Standards of Development; Prohibit Incompatible Uses; Regulate Alterations of Existing Buildings; Limit Congestion in Roads; and Protect Against Hazards. The Ordinance establishes a Flood Plain District and a Planned Development District. The Flood Plain District is described in Local Law 1-87. The Purposes of the Planned Development District are to provide for new residential, commercial, manufacturing or recreational districts in which the economics of scale and creative and innovative planning and architectural concepts and techniques may be utilized by the developer without departing from the spirit and intent of the zoning ordinance. The Planning Board shall review the location of the proposed Special Exception for the presence of and adverse natural considerations limiting development on the site as indicated by the Natural Resource Composite Maps of file in the Town offices. If the site falls into areas on the soils map denoted as having “moderate”, “severe”, or “very severe” limitations, within flood hazard areas, or areas of unique hydrologic or natural habitat areas, (including wetlands), the Planning Board may require the Applicant to consult with the appropriate technical review or assistance agencies. The Zoning Officer shall administer and enforce these regulations, including the receiving of applications, the inspections of premises, and the issuing of zoning permits. 							
Subdivision Regulations	Yes	Adopted 1988, Updated 2002 & 2007	Local	Local Planning Board	No	Yes	N/A
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730). <ul style="list-style-type: none"> Subdivision Regulations. Town of Oxford, as adopted 6-6-88 and last amended 7-11-2007. For the purpose of providing for orderly future growth and development of land, and affording adequate facilities for housing, transportation, distribution, comfort, convenience, safety, health, and welfare of the populations, the Oxford Planning Board of the Town of Oxford adopts these regulations for subdivision of land in the Town. The Planning Board may require that design techniques such as clustering (in accordance with Section 308 herein) be used to avoid development in these critical resource areas, and shall not approve a sketch plan which has failed to adequately address these critical resources concerns (soils, flood hazards, hydrologic and natural habitat resources). 							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<ul style="list-style-type: none"> Land subject to serious or regular flooding shall not be subdivided for residential occupancy or for such other uses as may increase danger to life or property or aggravate the flood hazard, but such land may be used for such uses, subject to any zoning regulations, or in such a way, that the flood danger to this property and other upstream or downstream properties will not be increased and periodic or occasional inundation will not be a substantial threat to life or property. The provisions of this section shall apply to all land falling within the 100 year flood limit as shown on maps prepared by the Town of Oxford and the Department of Housing and Urban Development as periodically amended. Development of steep slope (over 12%) sites will be conditionally acceptable only if there is no prudent or feasible alternative site, and erosion and sedimentation control measures are incorporated in the design, construction, and operation of the development according to standards set by the U.S. Soil Conservation Service. Development shall also preserve, to the maximum extent practicable, existing vegetation within a development site. This includes, where necessary, planting of appropriate native species. 							
Stormwater Management	Yes	Subdivision Regulations	Local, State	NYSDEC permits required for any major construction projects	Yes	N/A	N/A
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	Yes	Zoning Plan	Local	Local Planning Board	No	Yes	N/A
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a	Local	Local Planning Board	No	Yes	N/A
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	Not Indicated	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	Adopted 3/1987, Amended 11/10/2010	Federal, State, Local	Administered by County Code Official under and MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Local Law No. 1 of the year 2010, Town of Oxford Flood Law enacted by the Town Board. The Town Board of the Town of Oxford finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Oxford and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program The areas of special flood hazard for the Town of Oxford, Community Number 361304, are identified and defined on the documents prepared by the Federal Emergency Management Agency, with the applicable Flood Insurance Rate Map Panel Numbers whose effective date is, November 26, 2010. The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; <ol style="list-style-type: none"> (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4)	Yes	EPA Phase II Stormwater Rule	Federal	Not Indicated	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Oxford Fire District/Chenango County EMS	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change	No	-	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Other	No						



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment:							
Planning Documents							
Comprehensive Plan	Yes	Adopted 1973	Local	Town of Oxford	No	No	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	Yes	General Municipal Law Section 99-g.	local	Not Indicated	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	Not Indicated	State	NYSDEC permit and Federal Agencies	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local, State	NYSDEC	No	Yes	N/A
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other (this could include a climate action plan, tourism plan, business development plan, etc.)	Yes	Oxford Vision Plan	Local	Town Board	No	Yes	NA
Comment: <ul style="list-style-type: none">Oxford Vision Planning. In the summer of 2012 residents of the Town and Village of Oxford participated in a Community Visioning Process facilitated by the SUNY ESF Center for Community Design Research (CCDR). The vision statement is a broad statement that represents the collective view for Oxford's future and the goals support and describe the Vision Statement's components in more detail. Six Goals were established through the visioning process. Goal 1: Strengthen the long tradition of community engagement and sense of community to guide Oxford's future. Goal 2: Establish a locally based economy that is creative, diverse and sustainable and provides employment opportunities for a range of skill and education levels. Goal 3: Promote care and maintenance of public and private properties. Goal 4: Reinforce the village as the pedestrian civic, social, historic and retail heart of the Oxford community. Goal 5: Cultivate the talent, energy and ideas of Oxford's youth and young adults as essential to Oxford's present and future. Goal 6: Promote sustainable use of the natural and cultural resources that will contribute to the long term economic, social and environmental health of the community.Plan Actions include to; Seek assistance from the U.S. Army Corps of Engineers to develop a flood mitigation strategy that addresses the impact of development practices and to the extent possible relies on green infrastructure; Commission a comprehensive river corridor study to understand the causes of the flooding and that provides options for flood mitigation and control (current and preventing future) while still allowing the desired visual and physical relationship with the river. ; Collaborate with other communities in the Chenango River watershed to create a river restoration and management plan in consultation with the Department of Environmental Conservation and other agencies; Identify best practices for the sustainable and responsible use of Oxford's natural resources such as woodlands; and Utilize Town and Village websites more effectively to communicate with Town and Village residents.							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	County	Oxford Fire District/Chenango County EMS	Yes	Yes	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Post-Disaster Recovery Plan	No	-	-	-	-	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations."							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other	Yes						
Comment:							
<ul style="list-style-type: none"> Emergency Response Plan. State Mandated 							

Table 9.21-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	No
Permits are tracked by hazard area. For example, floodplain development permits.	No
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Oxford.

Table 9.21-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	
Mitigation Planning Committee	No	
Environmental Board/Commission	No	
Open Space Board/Committee	Yes	Planning Board
Economic Development Commission/Committee	No	
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	



Resources	Available? (Yes or No)	Department/ Agency/Position
Mutual aid agreements	Yes	Fire Dept
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	MOU with County to utilize their services
Surveyor(s)	Yes	County Highway Department if available manpower
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Oxford Fire Department
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	No	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Oxford.

Table 9.21-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	No

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Oxford.



Table 9.21-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	Yes – the Town has a website and uses a contractor to maintain
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	No

Community Classifications

The table below summarizes classifications for community programs available to the Town of Oxford.

Table 9.21-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No – available under Fire Dept.	-	-
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	No	-	-

Note:

N/A Not applicable
NP Not participating
- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

**Table 9.21-9. Adaptive Capacity**

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Low
Extreme Temperatures	Low
Flood	Low
Harmful Algal Bloom	Low
Invasive Species	Low
Natural Gas	Medium
Severe Storm	Medium
Severe Winter Storm	Medium
Wildfire	Low

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Oxford.

Table 9.21-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Oxford	8	10	\$68,761	6	-	3

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Oxford has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.



Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Oxford has completed Community Assistance Visits (CAV), with the most recent visit completed in 2012.

Regulatory

The Town of Oxford Flood Damage Prevention Ordinance (FDPO) was last updated on November 10, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

- **Infrastructure Protection/Floodplain Management:** Enhance Stormwater Management by upsizing culverts to increase flow and divert away from roadways. Review existing plan.
- **Infrastructure Protection/Floodplain Management:** Control construction of Beaver Dams in the Wylie Brook on Parker Rd. We will continue monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions.
- **Floodplain Management:** Consider non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as repetitive loss, such as acquisition/relocation or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

NY-12 and NY-220 have been identified as possible evacuation routes. However, due to changes in road conditions, residents should refer to the County Emergency Management Website for the most up-to-date information.

Sheltering

Oxford Academy Middle School, Oxford Academy Primary/High School, and Oxford United Methodist Church have been identified by the Red Cross National Sheltering Survey (NSS) as possible sheltering locations, but due to openings and changes in availability and needs, residents should refer to County Emergency Management Website for the most up-to-date information.



Temporary Housing

The Town of Oxford has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of Oxford did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.21.5 Hazard Event History Specific to the Town of Oxford

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Oxford's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.21-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.21-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 1, 2016	Flash Flood, Heavy Rain	No	Isolated, nearly stationary thunderstorms produced torrential rainfall across portions of central New York. Locally heavy rain produced several areas of flash flooding on small streams and across roadways, including several mudslides near the border of Chenango and Otsego counties.	Flash flooding with a debris jam was affecting County Route 35 just east of Oxford. An Estimated \$25,000 in property damages were reported.
May 1, 2017	Thunderstorm Wind	No	A thunderstorm moved across the region and became severe. This thunderstorm produced severe winds and caused a large number of trees to be uprooted.	An estimated \$25,000 in property damages were reported.
July 17, 2017	Flash Flood, Heavy Rain	No	Flood water was flowing over portions of Route 12, with deep standing water at the intersection of Route 12 and Route 35. Water and mud were reported rushing across Bradley Hill Road.	An estimated \$32,000 in property damages were reported throughout Oxford.
September 18, 2018	Flash Flood, Heavy Rain	No	A warm front positioned over Northeast Pennsylvania acted as the focus for several rounds of late night and early morning thunderstorm activity in the area. A deep moist environment was prime for the production of slow moving, heavy rainfall which contributed to several areas of localized flash flooding.	Several roads around Oxford were flooded, causing an estimated \$10,000 in property damages.



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
June 19, 2019	Flash Flood, Heavy Rain	No	Multiple roads were flooded and closed in the Oxford area, including County Road 32 and State Highway 220.	An estimated \$10,000 in property damages were reported.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.21.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Oxford's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.21-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Blueox Energy Corporation	Major Employer	Yes	Yes	2021-T. Oxford-003



Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Oxford. The Town of Oxford has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Oxford indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.21-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Low	Medium	Medium	High	Medium	Medium	Medium	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The Village of Oxford Highway Department and Fire Station are at risk from flooding.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- The Chenango River in Oxford is prime to overtopping the banks because it wasn't dredged after the floods and the banks were not repaired.
- Flood prone: Greene St in Oxford. The bridge at the Brooksbank/Cosen Rd intersection has been damaged by flood water several times (Town of Oxford). The railroad tracks parallel to Route 32 (Oxford/Brisbane/Greene) have washed out multiple times.

9.21.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.



Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.21-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TOX-1 (Former TOX-1)	Enhance Stormwater Management	Flood, Severe Storm	Town Highway Department, Chenango County Soil/Water; NYDEC	Upsizing culverts to increase flow and divert away from roadways. Review existing plan	Ongoing	Cost	-	The Town continues to upsize culverts as needed. See Mitigation Action # 2021-T. Oxford-001
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TOX-2 (Former TOX-2)	Control construction of Beaver Dams in the Wylie Brook on Parker Rd.	Flood, Severe Storm	NYSDEC, Town DPW	Continue monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions.	Ongoing	Cost	-	The Town continues to clean ditches that exacerbate flooding concerns. See Mitigation Action # 2021-T. Oxford-002
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TOX-3 Former TOX-3)	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL – 4 currently) and Severe Repetitive Loss (SRL – none currently), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners. Specifically identified are properties in the following locations: <ul style="list-style-type: none">• Canal Street• Christine Street• County Road 32• Twin Bridges Road							
	See above	Flood, Severe Storm	Town Council; support from NYSOEM and FEMA	See above	Ongoing	Cost	-	The Town continues to support non-structural flood hazard mitigation for repetitive loss properties and privately-owned critical facilities. See Mitigation Action # 2021-T. Oxford-003
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TOX-4 Former TOX-4, -5)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification. Public education and awareness program for floodplain residents. Updates to NFIP floodplain mapping. Promotion of “Firewise” programs in the County.							



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	The Town continues to support and participate in all County, State, and Federally-led mitigation planning initiatives.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TOX-5	Work with Lake Gerry Property Owners	Flood	Lake Gerry property owners, with administrative support from County	Continue to work with Lake Gerry property owners to explore the possibility of a community wastewater system for the Lake Gerry residential development.	No Progress	Cost	-	Discontinue project due to lack of interest from residents.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Oxford has not identified any mitigation projects or initiatives apart from those included in the in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Oxford worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.21-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Oxford would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.21-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.21-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Oxford-001	Roadside drainage/ pipe upgrade	1, 2, 3, 4, 6	Flood, Severe Storm, Severe Winter Storm	<p>Problem: Runoff from heavy storms increases the risk for road washout throughout multiple areas of the Town.</p> <p>Solution: The Town of Oxford will monitor roads before, during and after severe storms and flood events and will identify specific locations of undersized pipes that are exacerbating the flood and washout issues. As identified, the Town will replace pipes, increasing size as well to handle the appropriate amount of drainage needed for the roadway.</p>	No	No	Ongoing	Town of Oxford	\$20,000/pipe	High, ensures safe driving conditions and emergency access and reduces flood events	Bridge NY, NYSDOT, Municipal Budget	High	SIP	SP, ES
2021-T. Oxford-002	Cleaning Roadside Ditches	1, 2, 3, 4, 6	Flood, Severe Storm, Severe Winter Storm	<p>Problem: There are numerous areas throughout Town where erosion from debris is corroding the roadways and increasing flood issues.</p> <p>Solution: The Town of Oxford will monitor roadside ditches before, during and after severe storms and flood events for increased debris pile-up, and erosion concerns. As needed, the Town will clear the ditches to improve runoff and flow of water, decreasing risk for additional erosion and flooding.</p>	No	No	Ongoing	Town of Oxford	\$1,000/ditch	High, reduces erosion and flooding concerns, ensures safe driving conditions and emergency access	NYSDOT, Municipal Budget	High	NSP	NR, ES
2021-T. Oxford-003	Flood Mitigation Outreach	1, 2, 3, 4, 5, 7	Flood	<p>Problem: The BlueOx Energy Corporation, which has been identified as a major employer, is located within the 1% SFHA.</p> <p>Solution: The Town will conduct outreach to the owners of BlueOx about their location within the floodplain and provide alternatives for flood hazard mitigation. If the property owners decide to pursue mitigation projects, the Town will support grant application processes as needed.</p>	Yes 💧	No	Short	Town of Oxford	Low	High, ensures property protection and life safety	Municipal Budget	Medium	LPR	PI, PP



Table 9.21-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Oxford-004	High Hazard Dam Outreach	1, 2, 3, 4, 5, 7	Flood	Problem: The Chenango County-owned Clarks Creek Dam is located within the Town of Oxford and is classified as a "high hazard" Class C dam. Solution: The Town will support the County in annual EAP updates and inspections by an engineer and NYSDEC Dam Safety. If increased significant risk to the downstream areas is found, the Town will work with engineers, Chenango County, and NYSDEC Dam Safety to develop a plan to update and improve the conditions of the dam.	Yes ●	No	Short, within next 5 years	Town of Oxford, Chenango County	Low	High	Municipal Budget	High	EAP	PR
2021-T. Oxford-005	Repetitive Loss Outreach	1, 2, 3, 4, 5	Flood	Problem: There are 6 Repetitive Loss properties within the Town, including 3 policies located within the 1% SFHA. Solution: The Town of Oxford, supported by Chenango County Code Enforcement, will work to notify all property owners with residences within the floodplain and support flood mitigation projects at these addresses. If interested, the Town will support grant applications, project development, and administrative tasks related to flood mitigation projects including retrofitting, hardening, and elevation as necessary.	No	No	Short	Town of Oxford, Chenango County Code Enforcement	Low to support outreach	High, ensures property protection and life safety	Municipal Budget	Medium	LPR	PI, PP
2021-T. Oxford-006 & 2021-V. Oxford-004	Village/Town Hall Flood Control	2, 3, 4, 6, 7	Flood	Problem: Village and Town of Oxford Offices are located within the 1% SFHA. The Building has experienced repeated flooding in the basement and elevator shaft. Solution: The Village/Town Hall is a Historic Building and will need special permits to eliminate the flood risk. Phase I structural restoration has	Yes ●	No	Short; Phase II to begin 2021	Village of Oxford Engineering; DPW; USACE; Town of Oxford	High	High; Eliminating flood risk ensures continuity of operations	BRIC; FMA; NYS Historic Preservation Grants	High	SIP	PR, SP



Table 9.21-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				been completed at a cost of \$494,000. Phase II of the project will be to mitigate flood potential vulnerabilities, with a focus on excess water overflows from the Chenango River and ongoing losses to the area. The Village Engineer will work with the Town of Oxford to determine best course of action to reduce future losses within the requirements of Historic Preservation.						for Village and Town				

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.



- *Natural Systems Protection (NSP)* – These are actions that minimize damage and losses, and also 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

CRS Category:

- *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 also 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 9.21-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Oxford-001	Roadside drainage/pipe upgrade	1	1	1	1	1	1	0	0	0	1	1	1	0	0	9	High
2021-T. Oxford-002	Cleaning Roadside Ditches	1	1	1	1	1	1	0	0	0	1	1	1	0	0	9	High
2021-T. Oxford-003	Flood Mitigation Outreach	1	1	1	1	1	0	0	0	0	1	0	1	0	0	7	Medium
2021-T. Oxford-004	High Hazard Dam Outreach	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High
2021-T. Oxford-005	Repetitive Loss Outreach	1	1	1	1	1	0	0	0	0	1	0	1	0	0	7	Medium
2021-T. Oxford-006	Village/ Town Hall Flood Control	1	1	1	0	1	1	0	1	1	1	1	1	1	1	12	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.21.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.21-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood	003, 005	001, 006	002	004	004, 006	003, 005	003, 005	002	001, 006	001, 002
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001	002					002	001	001, 002
Severe Winter Storm		001	002					002	001	001, 002
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.21.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Oxford followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Supervisor's Office and Town Board. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership, Steering Committee, and supported the local planning process requirements 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.

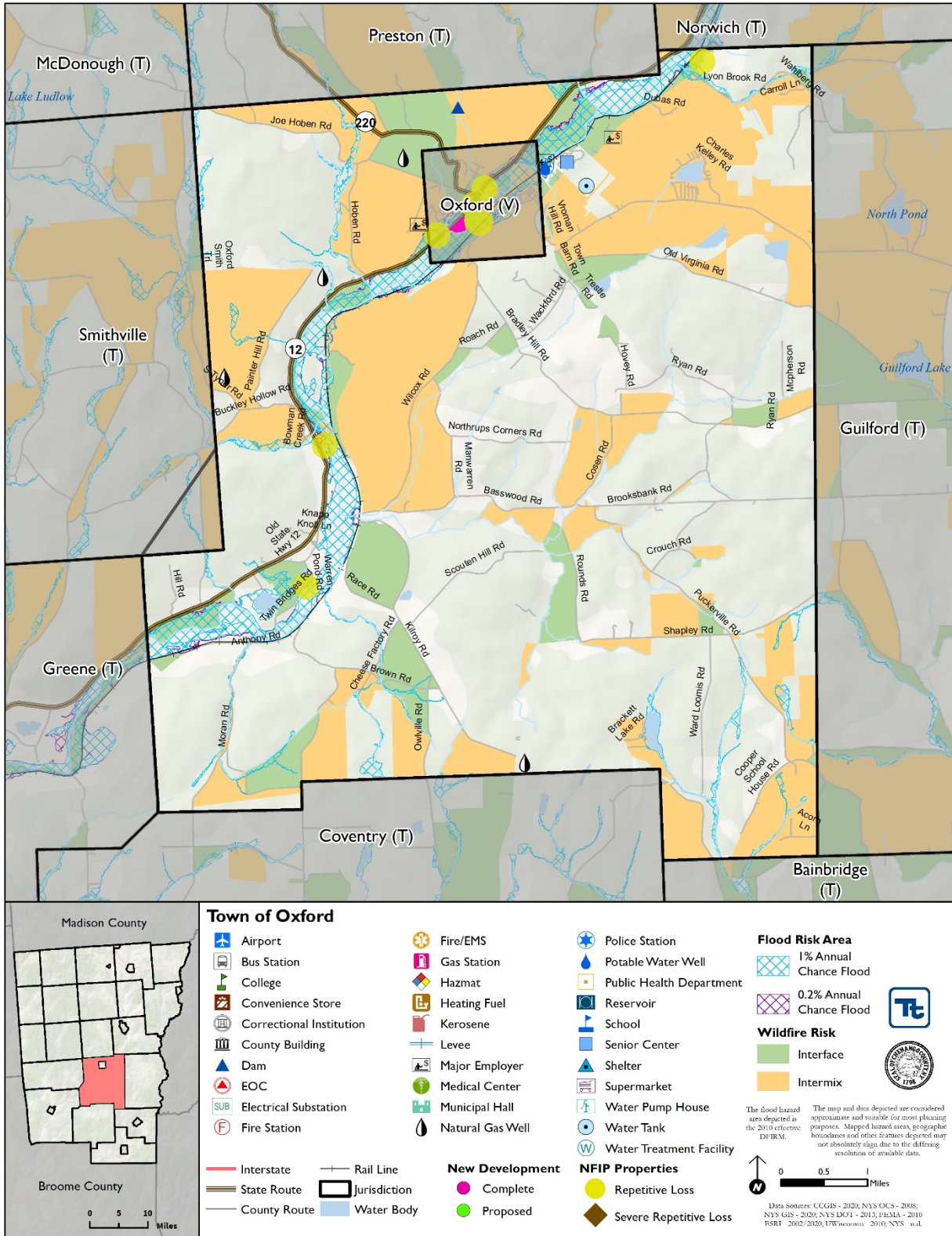
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.21.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Oxford that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Oxford has significant exposure. The map is illustrated below.



Figure 9.21-1. Town of Oxford Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Roadside drainage/ pipe upgrade		
Project Number:	2021-T. Oxford-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	Runoff from heavy storms increases the risk for road washout throughout multiple areas of the Town.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Oxford will monitor roads before, during and after severe storms and flood events and will identify specific locations of undersized pipes that are exacerbating the flood and washout issues. As identified, the Town will replace pipes, increasing size as well to handle the appropriate amount of drainage needed for the roadway.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	High, ensures safe driving conditions and emergency access and reduces flood events
Useful Life:	50 years	Goals Met:	1, 2, 3, 4, 6
Estimated Cost:	\$20,000/pipe	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Ongoing
Estimated Time Required for Project Implementation:	4 years	Potential Funding Sources:	Bridge NY, NYSDOT, Municipal Budget
Responsible Organization:	Town of Oxford	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Capital Development
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Replace culverts with same size	\$15,000	Not mitigation, problem continues
	Elevate roadways	N/A	Unfeasible, not cost effective
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Roadside drainage/ pipe upgrade	
Project Number:	2021-T. Oxford-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures emergency access to residents
Property Protection	1	Reduces flood risk to homes
Cost-Effectiveness	1	
Technical	1	Town Highway department has capabilities
Political	1	
Legal	1	Town has jurisdiction
Fiscal	0	
Environmental	0	No anticipated issues
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	0	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Cleaning Roadside Ditches		
Project Number:	2021-T. Oxford-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	There are numerous areas throughout Town where erosion from debris is corroding the roadways and increasing flood issues.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Oxford will monitor roadside ditches before, during and after severe storms and flood events for increased debris pile-up, and erosion concerns. As needed, the Town will clear the ditches to improve runoff and flow of water, decreasing risk for additional erosion and flooding.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	High, reduces erosion and flooding concerns, ensures safe driving conditions and emergency access
Useful Life:	50 years	Goals Met:	1, 2, 3, 4, 6
Estimated Cost:	\$1,000/ditch	Mitigation Action Type:	NSP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Ongoing
Estimated Time Required for Project Implementation:	3 years	Potential Funding Sources:	NYSDOT, Municipal Budget
Responsible Organization:	Town of Oxford	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Capital Development
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Dig wider ditches	N/A	Will increase erosion and disrupt environment, unfeasible
	Fill in ditches	N/A	Debris will pile on road, will increase flood and runoff issues
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Cleaning Roadside Ditches	
Project Number:	2021-T. Oxford-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures emergency access to residents
Property Protection	1	Reduces flood risk to homes
Cost-Effectiveness	1	
Technical	1	Town Highway department has capabilities
Political	1	
Legal	1	Town has jurisdiction
Fiscal	0	
Environmental	0	No anticipated issues
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	0	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Village/Town Hall Flood Control		
Project Number:	2021-T. Oxford-006		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	Village and Town of Oxford Offices are located within the 1% SFHA. The Building has experienced repeated flooding in the basement and elevator shaft.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village/Town Hall is a Historic Building and will need special permits to eliminate the flood risk. Phase I structural restoration has been completed at a cost of \$494,000. Phase II of the project will be to mitigate flood potential vulnerabilities, with a focus on excess water overflows from the Chenango River and ongoing losses to the area. The Village Engineer will work with the Town of Oxford to determine best course of action to reduce future losses within the requirements of Historic Preservation.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	High; Eliminating flood risk ensures continuity of operations for Village and Town
Useful Life:	99 years	Goals Met:	2, 3, 4, 6, 7
Estimated Cost:	High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP as funding becomes available
Estimated Time Required for Project Implementation:	Phase II to begin 2021	Potential Funding Sources:	BRIC; FMA; NYS Historic Preservation Grants
Responsible Organization:	Village of Oxford Engineering; DPW; USACE; Town of Oxford	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate Municipal Hall	\$2M+	Not feasible, no available land
	Raise building above floodplain	N/A	Building is designated as historic and cannot be changed
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Village/Town Hall Flood Control	
Project Number:	2021-T. Oxford-006	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures operation of essential government functions
Property Protection	1	Protects historical property
Cost-Effectiveness	1	
Technical	0	Village has contracted engineers for the project
Political	1	Village and Town support
Legal	1	
Fiscal	0	Village will need funding support
Environmental	1	No environmental concerns
Social	1	
Administrative	1	Support from Town Board
Multi-Hazard	1	Ensures operation of fire/emergency services
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



9.22 Village of Oxford

This section presents the jurisdictional annex for the Village of Oxford. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Village participated in the planning process; an assessment of the Village of Oxford's risk and vulnerability; the different capabilities utilized in the Village; and an action plan that will be implemented to achieve a more resilient community.

9.22.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Village of Oxford's hazard mitigation plan primary and alternate points of contact.

Table 9.22-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Terry M. Stark, Mayor PO Box 866, Oxford, NY 13830 607-743-0679 Tstark@stny.rr.com	Shelly Marks, Village Clerk/Treasurer PO Box 866, Oxford, NY 13830 607-843-2512 VGOxford@stny.rr.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.22.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Village was 1,450.

The Village of Oxford is in the northern part of the Town of Oxford in Chenango County and 8 miles southwest of the City of Norwich NY. The Village coordinates are 42°26'32"N, 75°35'52"W". The village center is intersected by New York State Route 12 and New York State route 220. The Chenango river flows south through the village and bisects the village into east and west sections. The village proper lies 971 feet above sea level.

Oxford is one of the townships of the "Chenango Twenty Towns" ceded to NY State by the Oneida Indians in a treaty made by Governor George Clinton at Fort Schuyler (Utica), September 22, 1788. On January 19th, 1793, the township of Fayette and an area then known as Gore, were incorporated into the town of Oxford, also formed from Union, Broome county, and Jericho (now Bainbridge). At this time Oxford was in Tioga County. The first town meeting was held at the Oxford house of Benjamin Hovey, Town Supervisor, on June 17th, 1793. The Village was incorporated in April of 1808. Because of its position at the intersection of the east-west Catskill-Ithaca turnpike and the north-south Utica to Binghamton route, Oxford became a trading center early on, by stage coach. The Chenango Canal, built in 1837, went from Binghamton to Utica, NY including lock sites. It ran through the center of the village of Oxford and made it one of the most important ports along the waterway. The railroads, named the O. & W. short for the Ontario & Western, and the DL. & W. the Delaware, Lackawanna, & Western arrived in 1870. During most of the 20th century the Village thrived on small business centered on the dairy and other agriculture. Today, the village still supports the ever decreasing farm community but is also transitioning to the needs of a more mature and retirement oriented community.



The Village of Oxford is governed by an elected five member Village Board consisting of a Village Mayor and four (4) Village Trustees with staggered two year terms of office. This governing body will assume responsibility for adoption and implementation of this plan. The Village has an elected Village Justice as well as several appointed positions and committees as follows: Village Clerk/Treasurer and Deputy, Zoning Officer, Historian, Planning Board, Waste Water Commission, and Tree Board. The Oxford Volunteer Fire Department and Emergency Squad is part of the Village and as such the Fire Chief reports to the Mayor.

9.22.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.22-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.22-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.22-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	-	0	-	0	-	0	-	0	-
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
Wastewater Treatment Upgrade	Gov’t		1		182.19-1-45		1-percent and 0.2-percent Flood Hazard Areas and Wildfire Interface Area		Completed 2016	
Storm Drain/Curbs	Gov’t		-		Village street		1-percent and 0.2-percent Flood Hazard Areas and Wildfire Interface Area		Construction 2020	
Police Garage	Gov’t		2		182.19-1-45		1-percent and 0.2-percent Flood Hazard Areas and Wildfire Interface Area		Completed 2018	
Village Hall Handicap Access via Elevator	Comm Gov’t		6		182.16-1.42		1-percent and 0.2-percent Flood Hazard Areas and		CDBG Grant Application 2021	



Type of Development	2016	2017	2018	2019	2020
				Wildfire Interface Area	
Navy Island Block Bld. Flood Hardening	Comm	6-12	182.16-3-11	1-percent and 0.2-percent Flood Hazard Areas and Wildfire Interface Area	Main Street Grant Target Rehab 2021
Water Improvement Project	Gov't	-	Village Streets		Final Engineering – BID 2021
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years					
Riverbank Erosion Project	Gov't	1	182.16-3-14	1-percent and 0.2-percent Flood Hazard Areas and Wildfire Interface Area	Preliminary Engineering
Fire Station Upgrades	Gov't	1	182.16-3.14	1-percent and 0.2-percent Flood Hazard Areas and Wildfire Interface Area	Preliminary Engineering

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.22.4 Capability Assessment

The Village of Oxford performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.22.4). The Village of Oxford identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Oxford and where hazard mitigation has been integrated.



Table 9.22-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	NYS-International Fire & Building Codes	Local, County, State	County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	Yes	Adopted 1/1973, Village Code Chapter 293, Amended 2/2/2013	Local	Village of Oxford Code Enforcement	No	Yes	N/A
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level <ul style="list-style-type: none">The provisions of this chapter are the minimum requirements adopted to promote the health, safety and general welfare of this community. They are deemed necessary for the following purposes: Promote Orderly Development; Regulate Intensity of Use; Regulate Location of Buildings; Establish Standards of Development; Prohibit Incompatible Uses; Regulate Alterations of Existing Buildings; Limit Congestion in Roads; and Protect Against Hazards.The Ordinance establishes a Flood Plain District, Planned Development District and Open Space District. The purpose of the F-P Floodplain District is to restrict the use of certain areas involving hazards to life and property due to flooding. Permitted uses include; Agricultural or recreational use of land; and Public utility structure or use. The purpose of the Planned Development District is; to provide for new residential, commercial or recreational districts in which the economies of scale and creative and innovative planning and architectural concepts and techniques may be utilized by the developer without departing from the spirit and intent of this Zoning Chapter. The purpose of the O-S Open Space District is to delineate those areas where substantial development of the land in the form of buildings or structures is restricted due to special or unusual conditions of topography, drainage, floodplain or other natural conditions.The Ordinance contains a prohibition against natural gas and/or petroleum exploration, extraction or production wastes.							
Subdivision Regulations	Yes	Adopted 11/11/1969, Village Code Chapter 252	Local	Village of Oxford Planning Board	No	Yes	N/A
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730) <ul style="list-style-type: none">Chapter 252, Subdivision of Land, 1969. It is declared to be the policy of the Planning Board to consider land subdivision plats as part of a plan for the orderly, efficient and economical development of the village. This means, among other things, that the site can be used safely for building purposes without danger to health or peril from fire, flood or other menace; that proper provision shall be made for drainage, water supply, sewerage and other needed improvements; that all proposed lots shall be so laid out and of such size to be in harmony with the development pattern of the neighboring properties; and that the proposed streets shall compose a convenient system conforming to the Official Map.Land to be subdivided shall be of such character that it can be used safely for building purposes without danger to health or peril from fire, flood or other menace.Land subject to flooding or land deemed by the Planning Board to be uninhabitable shall not be platted for residential occupancy, nor for such other uses as may increase danger to health, life or property, or aggravate the flood hazard, but such land within the plat shall be set aside for such uses as shall not be endangered by periodic or occasional inundation or improved in a manner satisfactory to the Planning Board to remedy said hazardous conditions.All subdividers shall present an individual lot drainage plan for each lot in their proposed subdivision.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Stormwater Management	Yes	Title 6, Ch. X,17-7,8,70	Local, County, State	NYSDEC permits required for any major construction projects	Yes	Yes	N/A
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System (SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	No	-
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	Yes	Not Indicated	Local	Village of Oxford Governing and Planning Boards	No	No	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a	Local	Village Code Enforcement	No	No	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	Code Enforcement	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019 Changed Zoning Code to prohibit fracking							
Flood Damage Prevention	Yes	Adopted 3/27/2012, Village Code Chapter 152	Federal, State, Local	Administered by County Code Official under an MOU with Village	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Chapter 152, Flood Damage Prevention, 2010. The Board of Trustees of the Village of Oxford finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Village of Oxford and that such damages may include destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ul style="list-style-type: none"> (1)regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; 							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<p>(2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;</p> <p>(3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;</p> <p>(4) control filling, grading, dredging and other development which may increase erosion or flood damages;</p> <p>(5) regulate the construction of flood barriers which will unnaturally divert flood waters, or which may increase flood hazards to other lands, and;</p> <p>(6) qualify and maintain for participation in the National Flood Insurance Program</p> <ul style="list-style-type: none"> The areas of special flood hazard for the Village of Oxford, Community Number 360163, are identified and defined on the following documents prepared by the Federal Emergency Management Agency: (1) Flood Insurance Rate Map Panel Numbers: 36017C0353E, 36017C0354E, 36017C0361E, 36093C0362E whose effective date is November 26, 2010. The Chenango County Fire and Building Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4)	Yes	EPA Phase II Stormwater Rule	Federal	Department of Public Works	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Oxford Fire District and County Emergency Mgmt	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change	No	NYS Executive Law, Article 75	Local	-	Yes	No	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Other	Yes	-	-	-	-	-	-
Comment:							
<ul style="list-style-type: none"> Village Code. Adopted 7/18/1995 							
Planning Documents							
Comprehensive Plan	Yes	Adopted 2/1970, In Progress	Local	Village Governing & Planning Board	No	No	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
		Updates Sep. 2020					
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	Yes	Annually updated in April	Local	Village Board	No	No	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	Yes	Not Indicated	Local	Fire Department/ Emergency Management	No	No	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	Not Indicated	Local, State	NYSDEC permit and Federal Agencies	No	No	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Not Indicated	Local, County, State	Village Governing & Planning Board	No	No	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	Yes	NYS Constitution - Article 9; Statute of Local Governments. Section 10 (7)	Local	Zoning Law	Yes	No	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	Yes	-	Local	-	No	Yes, in Comprehensive Plan	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	Yes	In progress 2020	Local	Supervisor/ NYSDEC/ Planning Board	No	No	-
Comment: Voluntary Tree Board also helping							
Transportation Plan	No	-	Local	-	No	-	-
Comment: County has transportation Plan for SR12 corridor							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Oxford Fire District and County Emergency Mgmt	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	-	Local	Local OEM	Yes	No	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021- Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations. Developed COVID-specific COOP							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Other	Yes	-	-	-	-	-	-
Comment: <ul style="list-style-type: none">Emergency Response Plan							

Table 9.22-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Building Permits approved by County is comply with local zoning laws
Permits are tracked by hazard area. For example, floodplain development permits.	County tracks permits
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	Yes, in Zoning/open space

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Oxford.

Table 9.22-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	Zoning Board
Open Space Board/Committee	Yes	Zoning Board
Economic Development Commission/Committee	Yes	“Promote Oxford Now” Business Chamber of Commerce; Community/Economic Development Committee
Warning Systems / Services	Yes	School has a warning system; Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	Operations agreements with Fed. Soil and Water Program
Mutual aid agreements	Yes	Fire Department has with surrounding Fire Districts Guilford, Greene, McDonough, Preston; Town of Oxford
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Chenango County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer; Village Engineer – Retained
Planners or engineers with an understanding of natural hazards	Yes	Chenango County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	County Planning & Development; Village Contracted as required
Professionals trained in conducting damage assessments	Yes	NYS Professional Engineer within Village
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Chenango County Planning & Development



Resources	Available? (Yes or No)	Department/ Agency/Position
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	Chenango County Code Enforcement. Village reserves right to revert to Village control.
Surveyor(s)	Yes	County Highway Department
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Oxford Fire Department
Grant writer(s)	Yes	County Planning & Development; Village Grant writer - Contracted
Resilience Officer	Yes	Code Enforcement Officer / Planning Board and Committees
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Village of Oxford.

Table 9.22-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes, used in the 1970s. MHI income levels are in dispute with Village – May Impact ability to be eligible for Grants
Capital improvements project funding	Yes, occasional use. Water Project 2014
Authority to levy taxes for specific purposes	Yes, never used
User fees for water, sewer, gas or electric service	Yes, annual use
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes, occasional use
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes, occasional use
Open Space Acquisition funding programs	No
Other	Yes

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Oxford.

Table 9.22-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes, local volunteer
Personnel skilled or trained in website development?	Yes, has website developer



Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Hazard mitigation information available on your website; if yes, describe	Yes
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No, process of developing Facebook Page for Hazard Mitigation
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	Yes; Citizen Steering Committees; Beautification and Landscaping Committee
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Yes; Rotary, Lions, Masons
Warning systems for hazard events; if yes, briefly describe.	Yes, School has snow emergency warning; Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Yes, PD and FD have emergency evacuation plans
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Village of Oxford.

Table 9.22-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	5Y	10/2015
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.22-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	High
Harmful Algal Bloom	Low



Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Oxford.

Table 9.22-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Village of Oxford	50	55	\$609,446	17	-	36

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Village of Oxford has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Village of Oxford has completed Community Assistance Visits (CAV), with the most recent visit completed in 2012.



Regulatory

The Village of Oxford Flood Damage Prevention Ordinance (FDPO) was last updated on March 27, 2012. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Integration with Comprehensive Planning:** A Flood Mitigation Study was completed in the fall and winter of 2012-2013. The study recommended a plan to protect the vulnerable sections of the village and provide ecological catchments north of the village. Next steps are to engage an engineering consultant and complete a Preliminary Engineering Report has not materialized due to budget constraints. Plan will become part of revised Comprehensive Plan scheduled to be completed in 2014-2015.
- **Floodplain Management:** Control flooding along the banks of the Chenango River by extending Dike system to divert flow to slow or prevent flood loss to repetitive loss properties.
- **Infrastructure Protection/Floodplain Management:** Enhance storm water management system to adequately size culverts and storm drains to address repetitive loss to driveways and streets. A new drainage system would be constructed on the eastern slope of Bradley Hill to increase the capacity of the drainage system to divert storm and spring runoff away from 20 residences on Greene Street. This system would also mitigate road erosion on Greene and Water Streets.
- **Infrastructure Protection/Floodplain Management:** Retrofit flood-prone highways that are critical to infrastructure. This will significantly reduce the effects of flood and severe storm erosion. This will include installing curbs on County Rt. 32 in the village (Albany & Greene Streets) in all areas that have deteriorated, or the reveal has been minimized over time.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

SR-12 or SR-220 have been identified by the Village as the main evacuation routes, however depending on availability, alternate routes should be considered based on road conditions. Residents should refer to the Village website, or County Emergency management Website for up-to-date information.

Sheltering

The Following have been identified by the Village as potential sheltering or heating/cooling centers within the Village with access to backup power:

- NYS Veterans Home
- Oxford Academy and Central School
- Village of Oxford Fire Department



Temporary Housing

The Oxford High School Parking Lot is located outside of the Floodplain and has access to generator power for temporary housing solutions.

Permanent Housing

While the Village of Oxford did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Village can utilize this analysis to identify potential locations.

9.22.5 Hazard Event History Specific to the Village of Oxford

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Village of Oxford's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.22-11 provides details regarding municipal-specific loss and damages the Village experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.22-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
June 2019	Severe Storms and Flooding	No	Heavy rainfall resulted in flooding roads and severe damage to streets	\$20,000 to repair culverts within the Village.
December 6-7, 2020	Severe Snow Storm	TBD	A snow storm dropped 34 inches of snow in the Village between 10 PM December 6 th and 10 AM December 7 th .	Estimated damages in excess of \$15,000.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.22.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Village of Oxford's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.



- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.22-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Mirabito Convenience Store	Gas Station/ Convenience Store	Yes	Yes	2021-V. Oxford-007
Oxford Fire Department	Fire Station	Yes	Yes	2021-V. Oxford-001
Oxford	Levee	Yes	Yes	2021-V. Oxford-006
Town of Oxford and Village of Oxford Office Building	Municipal Hall	Yes	Yes	2021-V. Oxford-004
Oxford Wastewater Treatment Facility	Wastewater Facility	Yes	Yes	2021-V. Oxford-006
Potable Water Well	Potable Water Facility	Yes	Yes	2021-V. Oxford-006
Blue Ox	Gas Station/ Convenience Store	No	Yes	-
Bartles Pharmacy	Gas Station/ Convenience Store	No	Yes	-
UHS Clinic	Medical Facility	No	Yes	-

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability



rankings of potential natural hazards for the Village of Oxford. The Village of Oxford has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Village of Oxford indicated the following:

- There are quite a few remaining natural gas wells within the Village and Town of Oxford, therefore natural gas risk was increased to “medium.”
- Winter Storms are extremely common within the Village and pose many risks to residents and Village infrastructure, therefore severe winter storm risk was increased to “high.”

Table 9.22-13. Hazard Ranking

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas*	Severe Storm	Severe Winter Storm*	Wildfire
Medium	Medium	Medium	High	Low	Medium	Medium	High	High	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

**The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality*

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Flooding of Village Streets/buildings and residential property from Chenango River and stormwater runoff from adjacent hillsides. This is due to storms and spring snowpack melt.
- Erosion of River Bank at current rate will endanger Oxford Fire Station and volunteers working within structure within five years.
- Clark’s Creek Dam and Channel has potential for flooding and damaging Village and residential property. Damages have been significant over the past 10 years.
- BIDA Adult Home is located outside of the SFHA but has experiences flooding.
- Mechanic St private homes flood frequently.
- There is a culvert that runs from the Dam at Clark’s Creek to the Village on Scott St that runs through two properties. There is an old stone wall that collapsed, and is not within the operations agreement with the Village and SWCD. The Village proposed a maintenance agreement with the property owners for the Village to fix the stone retaining wall to reduce flooding 50-80 ft and then the property owners would be able to maintain after the improvements. The property owners turned down the agreement for the Village to replace the culvert after 2016 and no progress has been made since.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Areas around the Chenango river seem to flood quite often, can it be dredged? The land just south of village of Oxford looks like it has been abandoned farm-land because of constant flooding
- Heavy rains have caused State St. in Oxford to become a river and continue down into the village which causes deep water in the streets around the park

9.22.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.



Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.22-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
VOX-1	Address erosion of river bank currently endangering Oxford Fire Station.	Flood, Severe Storm	Village of Oxford	Address erosion of river bank currently endangering Oxford Fire Station.	In Progress - Engineering review completed 2019; Assigned Civil Engineer 2020 Applied for BRIC Grant	\$694,000	-	Project Scope and funding stream TBD in 2021; Continue Project as 2021-V. Oxford-001
VOX-2	Clarks Creek Channel Upgrades	Flood	Village of Oxford Engineering and DPW, Chenango County DPW, US Soil and Water	Upgrade and/or restore Clarks Creek Channel to increase the structural stability and drainage capacity of the channel to eliminate frequently flooded residential areas on Scott Street as well as damage to Street itself.	In Progress	Cost	-	Property owners in areas outside of Operation and Maintenance plan not willing to participate in mitigation measures that could help eliminate future flooding events. See 2021-V. Oxford-002
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VOX-3	Albany Street Stormwater Upgrades	Flood	Village of Oxford Engineering and DPW, Chenango County DPW, US Rural Development	Install new curbs and three new storm drain culverts to increase drainage capacity of the street channel to eliminate frequently flooded residential areas on Albany Street as well as damage to Street itself.	In Progress	Cost	-	\$2.2 Million dollar project to be funded by Village and \$1,000,000 state grant to commence in 2020 and be completed by 2022. See 2021-V. Oxford-003
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VOX-4	Chenango River Dyke Extension	Flood	Village of Oxford Engineering and DPW, FEMA, USACE	Extend current dyke system to prevent the flooding of the Oxford Middle School and more than 30 residential properties along Mechanic Street.	No Progress	Cost	-	Discontinue – Design Impact and Flood mitigation funding beyond scope of Village to conduct without assistance from Army Corps of Engineers and/or State and Federal Regulatory Agencies.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VOX-5	Village Hall Flood Control	Flood	Village of Oxford Engineering and DPW, FEMA, USACE	Flood-harden the Village Hall to prevent the continued flooding of the Village Hall basement and planned elevator pit. The increased flood	In Progress	Cost	-	Completion of Phase I structural Rehabilitation of Historic Building has been completed at a cost of \$494,000. Phase II to address mitigating flooding potential to commence 2021. See 2021-V. Oxford-004
						Level of Protection	-	
						Damages Avoided;	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				prevention capacity will prevent excess water flowing from the river and mitigate these ongoing losses.		Evidence of Success		
VOX-6	Boname Park Flood Control.	Flood	Village of Oxford Engineering and DPW, FEMA, US Rural Development	Extend and widen current diversion stream as well as widen and deepen storm water retention pond. The increased flood prevention capacity will prevent excess water flowing from the steep adjacent hill slopes and mitigate these ongoing losses.	No Progress	Cost	-	Flood mitigation that benefits adjacent property owners to Boname Park will require the cooperation of the Town of Oxford to jointly pursue the project.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VOX-7 (Former VOX-1)	Chenango River Dike Extension	Flood	NYSDEC, Chenango County Soil & Water Fish & Wildlife	Control flooding along the banks of the Chenango River by extending dike system to divert flow to slow or prevent flood loss to repetitively flooded properties.	No Progress	Cost	-	Discontinue project due to lack of progress and available funding.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VOX-8	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL – 4 currently) and Severe	Flooding, Severe Storms	Village Governing Body; support from NYSOEM and FEMA	Acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners. Specifically identified are properties on Mechanic Street and North Canal Street.	No Progress	Cost	-	The Village will continue to support RL/SRL property owners to pursue flood mitigation projects. See 2021-V. Oxford-005
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Repetitive Loss (SRL – none currently)							
VOX-9 (Former VOX-2)	Stormwater Management Upgrades:	Flood, Severe Storms and heavy snow-run off	Village DPW and County Highway Dept., Chenango County Soil & Water, NYDEC	Enhance storm water management system to adequately size culverts and storm drains to address repetitive loss to driveways and streets. A new drainage system would be constructed on the eastern slope of Bradley Hill to increase the capacity of the drainage system to divert storm and spring runoff away from 20 residences on Greene Street. This system would also mitigate road erosion on Greene and Water Streets	No Progress	Cost	-	Discontinue project due to lack of progress and support from homeowners.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VOX-10 (Former VOX-3)	Highway Flood Retrofits	Flood, Severe Storms	Village DPW, County Highway Dept.	Retrofit flood-prone highways that are critical to infrastructure. This will significantly reduce the effects of flood and severe storm erosion. This will include installing curbs on County Rte. 32 in the village (Albany & Greene Streets) in all areas that have deteriorated or the reveal has been minimized over time	Ongoing	Cost	-	The Village continually works to retrofit flood-prone roadways to eliminate flood concerns. See Mitigation Actions below for more information.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VOX-11	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.							



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
(Former VOX-4, -5)	<ul style="list-style-type: none">Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing	Cost	-	Ongoing Capability of the Village.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Oxford has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- Village completed Drainage improvement Project resulting from FEMA Disaster 4031 (PVV 1513) in November 2020. This project will help improve storm water drainage on Greene street.
- Village completed replacement of a Scott Street Concrete Box Culvert in 2016.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Oxford worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.22-15 summarizes the comprehensive-range of specific mitigation initiatives the Village of Oxford would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.22-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.22-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-V. Oxford-001	Riverbank Erosion	1, 2, 3, 4, 6	Erosion, Flood, Severe Storm	<p>Problem: The Oxford Fire Station is located within the 1% SFHA and erosion of the Chenango River endangers the structure.</p> <p>Solution: The Village is in the process of developing a project with an engineer to address erosion and flooding concerns at the Fire Station. The project will entail looking at the structure of the fire house and adding supports to prevent the fire station falling into the river, as well as addressing the degrading streambank with natural stabilization measures to prevent future erosion.</p>	Yes 💧	No	Short; BRIC Grant applied for in 2020	Village of Oxford	High; \$694,000	High; eliminate Fire Station flood risk and erosion causing potential for fire house to fall into river	BRIC	High	SIP	PP, SP
2021-V. Oxford-002	Clarks Creek Property Mitigations	1, 2, 5	Flood	<p>Problem: There is increased flood risk near Clarks Creek/Scott St to homes in the area due to a dam within the Town of Oxford.</p> <p>Solution: The Village will continue to support flood mitigation efforts for property owners. While property owners have previously decided against mitigation, the Village maintains the option for property owners in the future to reduce risk of future flooding events and damages to the street.</p>	No	No	Short	Village of Oxford; SWCD	Low	High; reduce repetitive losses within the Village	Municipal Budget to support access to flood mitigation; FMA grants available to homeowners	Medium	LPR, EAP	PR, PP
2021-V. Oxford-003	Albany Street Stormwater Upgrades	All Goals	Flood, Severe Storm, Severe Winter Storm	<p>Problem: A stream channel off of the Chenango River results in flooding of residences and roadways along Albany Street.</p> <p>Solution: The Village is seeking to install new curbs and three storm drain culverts to increase the drainage capacity of the channel. This will help eliminate flooding to residences and reduce the number of repetitive losses within the Village, as well as eliminate damages to the</p>	No	No	Short; Project completion by 2022	Village of Oxford Engineering and DPW, Chenango County DPW, US Rural Development	High; \$2.2 million	High; Eliminate flood risk and repetitive losses	NYSDHSES; USDA Rural Development Grants	High	SIP, NSP	SP, NR, PP



Table 9.22-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				roadway which are frequent. Project costs have been estimated at \$2.2 million, to be funded by the Village along with a NYS Grant to complete the project by 2022.										
2021-V. Oxford-004 & 2021-T. Oxford-006	Village/Town Hall Flood Control	2, 3, 4, 6, 7	Flood	<p>Problem: Village and Town of Oxford Offices are located within the 1% SFHA. The Building has experienced repeated flooding in the basement and elevator shaft.</p> <p>Solution: The Village/Town Hall is a Historic Building and will need special permits to eliminate the flood risk. Phase I structural restoration has been completed at a cost of \$494,000. Phase II of the project will be to mitigate flood potential vulnerabilities, with a focus on excess water overflows from the Chenango River and ongoing losses to the area. The Village Engineer will work with the Town of Oxford to determine best course of action to reduce future losses within the requirements of Historic Preservation.</p>	Yes ⬇	No	Short; Phase II to begin 2021	Village of Oxford Engineering; DPW; USACE; Town of Oxford	High	High; Eliminating flood risk ensures continuity of operations for Village and Town	BRIC; FMA; NYS Historic Preservation Grants	High	SIP	PR, SP
2021-V. Oxford-005	RL/SRL Outreach	1, 2, 3, 4, 5	Flood	<p>Problem: There are 17 RL properties within the Village and 36 NFIP Policyholders living within the 1% SFHA.</p> <p>Solution: The Village will continue to support RL/SRL property owners to pursue flood mitigation projects by supporting grant administration for homeowners. Chenango County Code Enforcement will provide damage assessments and inspections as necessary.</p>	No	No	Short	Village of Oxford; Chenango County Code Enforcement; Support from FEMA, NYS DHSES	Low	High	Municipal budget for outreach and grant support	High	LPR, EAP	PR, PP, PI
2021-V.	Critical Facility	1, 2, 3, 4, 5, 7	Flood	Problem: The Oxford Levee, Potable Water Well, and Wastewater Treatment Facility are	Yes ⬇	No	Short	Village of Oxford; Chenango	Low to conduct	High, reduce flooding at	Municipal Budget to conduct	High	LRP, SIP	PP, SP



Table 9.22-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
Oxford-006	Flood Mitigation			located within the 1% SFHA (100-year floodplain). Solution: The Village will work with Chenango County Code Enforcement and Engineering to determine flood risk and vulnerability of the above Village-owned facilities. Depending on the results of the vulnerability analysis, the Village will follow recommendations for flood mitigation, including drainage improvements, waterproofing tanks at the pump station, and structural improvements to the levee.				County Code Enforcement	vulnerability analysis	critical facilities	vulnerability analysis, USDA/FMA grants to implement projects			
2021-V. Oxford-007	Critical Facility Flood Outreach	1, 2, 3, 4, 5, 7	Flood	Problem: The Mirabito Convenience Store and Gas Station has been identified as a critical facility and is located within the 1% SFHA (100-year floodplain). Solution: The Village will conduct outreach to the owners of Mirabito about their location within the floodplain and provide alternatives for flood hazard mitigation. If the property owners decide to pursue mitigation projects, the Village will support grant application processes as needed.	Yes 💧	No	Short	Village of Oxford	Low	High	Municipal Budget	Medium	LPR, EAP	PR, PP, PI

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV Community Assistance Visit
 CRS Community Rating System
 DPW Department of Public Works

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program
 HMGP Hazard Mitigation Grant Program
 PDM Pre-Disaster Mitigation Grant Program

Timeline:


The time required for completion of the project upon implementation

Cost:



EHP	Environmental Planning and Historic Preservation	BRIC	Building Resilient Infrastructure and Communities	The estimated cost for implementation.
FEMA	Federal Emergency Management Agency			<u>Benefits:</u>
FPA	Floodplain Administrator			A description of the estimated benefits, either quantitative and/or qualitative.
HMA	Hazard Mitigation Assistance			
N/A	Not applicable			
NFIP	National Flood Insurance Program			
OEM	Office of Emergency Management			

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.22-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-V. Oxford-001	River Bank Erosion	1	1	1	0	1	1	0	1	1	1	1	1	1	1	12	High
2021-V. Oxford-002	Clarks Creek Property Mitigations	1	1	1	0	0	0	1	1	0	1	0	0	1	1	8	Medium
2021-V. Oxford-003	Albany Street Stormwater Upgrades	1	1	1	0	1	1	0	1	1	1	1	1	1	1	12	High
2021-V. Oxford-004	Village/Town Hall Flood Control	1	1	1	0	1	1	0	1	1	1	1	1	1	1	12	High
2021-V. Oxford-005	RL/SRL Outreach	1	1	1	1	1	1	1	1	0	1	0	1	0	0	10	High
2021-V. Oxford-006	Critical Facility Flood Mitigation	1	1	1	1	1	1	1	1	0	1	0	1	0	0	10	High
2021-V. Oxford-007	Critical Facility Flood Outreach	1	1	1	1	1	1	1	1	0	1	0	1	0	0	10	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.22.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.22-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood	002; 005; 006; 007	001; 003; 004; 006	003	002; 005; 007	002; 004; 005; 007	001; 002; 003; 005; 006; 007	005; 007	003	001; 003; 004; 006	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001; 003	003			001; 003			001; 003	
Severe Winter Storm		001; 003				001; 003			001; 003	
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.22.9 Staff and Local Stakeholder Involvement in Annex Development

The Village of Oxford followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Village departments, including: The Mayor's Office and the Village Board of Trustees. The Mayor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

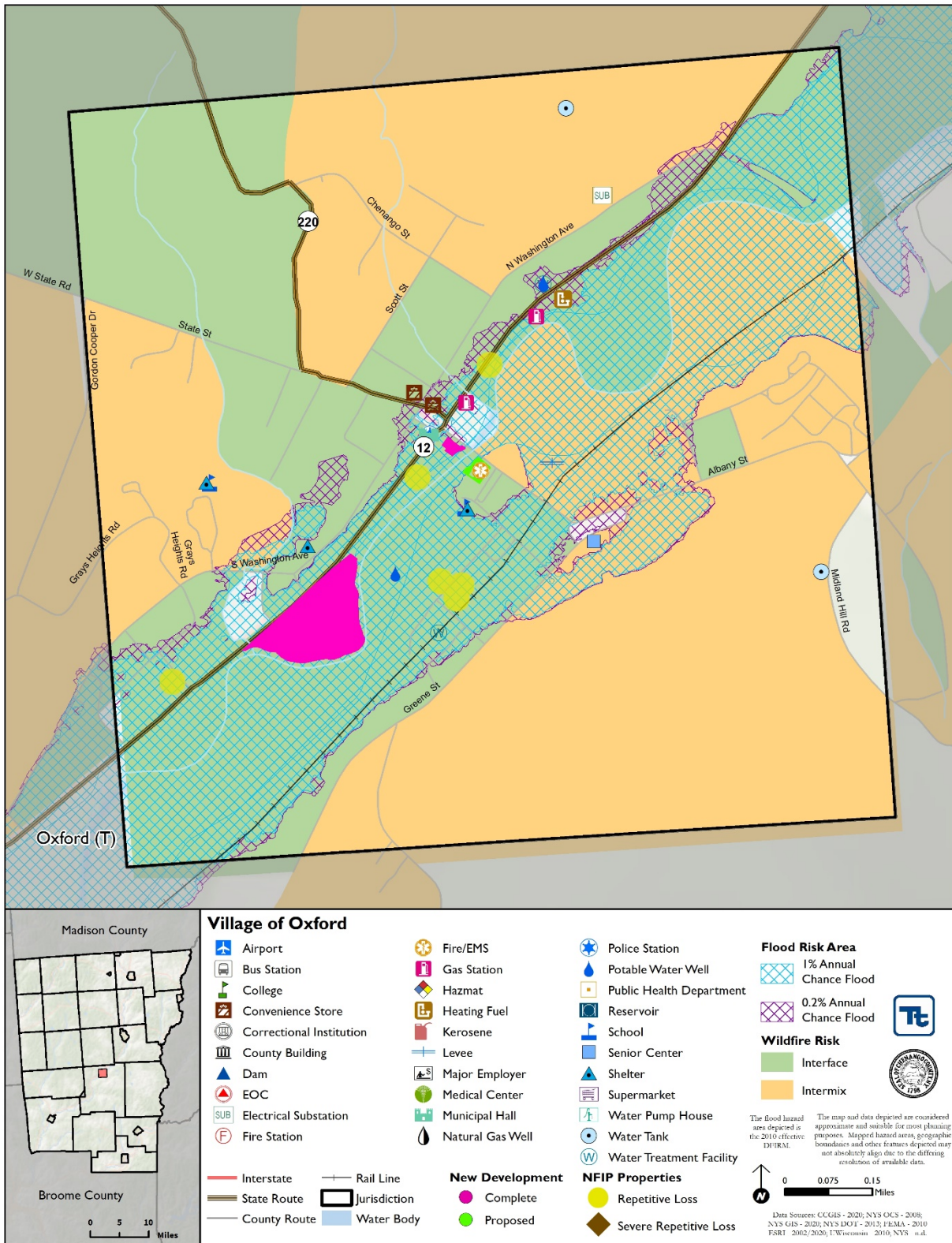
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.22.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Village of Oxford that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Oxford has significant exposure. The map is illustrated below.



Figure 9.22-1. Village of Oxford Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	2021-V. Oxford-001		
Project Number:	River Bank Erosion		
Risk / Vulnerability			
Hazard(s) of Concern:	Erosion, Flood, Severe Storm		
Description of the Problem:	The Oxford Fire Station is located within the 1% SFHA and erosion of the Chenango River endangers the structure.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village is in the process of developing a project with an engineer to address erosion and flooding concerns at the Fire Station. The project will entail looking at the structure of the fire house and adding supports to prevent the fire station falling into the river, as well as addressing the degrading streambank with natural stabilization measures to prevent future erosion.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	High; eliminate Fire Station flood risk and erosion causing potential for fire house to fall into river
Useful Life:	99 years	Goals Met:	1, 2, 3, 4, 6
Estimated Cost:	High; \$694,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP as funding is available
Estimated Time Required for Project Implementation:	1-2 years	Potential Funding Sources:	BRIC Grant applied for in 2020
Responsible Organization:	Village of Oxford	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate fire station	\$1M+	Not cost-effective, no available land
	Divert river	N/A	Not environmentally sound, floodplain is too large to reduce risk by relocating river
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-V. Oxford-001	
Project Number:	River Bank Erosion	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures operation of fire/emergency services
Property Protection	1	
Cost-Effectiveness	1	
Technical	0	Village has contracted a civil engineer for the project
Political	1	
Legal	1	
Fiscal	0	Village will need funding support
Environmental	1	No environmental concerns
Social	1	
Administrative	1	Support from Village Board
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	2021-V. Oxford-004		
Project Number:	Village/Town Hall Flood Control		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	Village and Town of Oxford Offices are located within the 1% SFHA. The Building has experienced repeated flooding in the basement and elevator shaft.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village/Town Hall is a Historic Building and will need special permits to eliminate the flood risk. Phase I structural restoration has been completed at a cost of \$494,000. Phase II of the project will be to mitigate flood potential vulnerabilities, with a focus on excess water overflows from the Chenango River and ongoing losses to the area. The Village Engineer will work with the Town of Oxford to determine best course of action to reduce future losses within the requirements of Historic Preservation.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	High; Eliminating flood risk ensures continuity of operations for Village and Town
Useful Life:	99 years	Goals Met:	2, 3, 4, 6, 7
Estimated Cost:	High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP as funding becomes available
Estimated Time Required for Project Implementation:	Phase II to begin 2021	Potential Funding Sources:	BRIC; FMA; NYS Historic Preservation Grants
Responsible Organization:	Village of Oxford Engineering; DPW; USACE; Town of Oxford	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate Municipal Hall	\$2M+	Not feasible, no available land
	Raise building above floodplain	N/A	Building is designated as historic and cannot be changed
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-V. Oxford-004	
Project Number:	Village/Town Hall Flood Control	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures operation of essential government functions
Property Protection	1	Protects historical property
Cost-Effectiveness	1	
Technical	0	Village has contracted engineers for the project
Political	1	Village and Town support
Legal	1	
Fiscal	0	Village will need funding support
Environmental	1	No environmental concerns
Social	1	
Administrative	1	Support from Village Board
Multi-Hazard	1	Ensures operation of fire/emergency services
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



9.23 Town of Pharsalia

This section presents the jurisdictional annex for the Town of Pharsalia. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Pharsalia's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.23.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Pharsalia's hazard mitigation plan primary and alternate points of contact.

Table 9.23-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Jeremiah Micklas, Town Supervisor PO Box 39 East Pharsalia, NY 13758 607-373-3430 Pharsalia@co.chenango.ny.us	Tom Slate, Superintendent of Highways PO Box 39 East Pharsalia, NY 13758 607-647-5203 Tom.Slate.Pharsalia.HWY@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.23.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 593.

The Town of Pharsalia is located in the northeast quadrant of Chenango County.

The original settlers arrived in 1797 and named the area as Stonington. This was in tribute to the town that they had traveled from in Connecticut. The town was founded in 1806 and renamed as Pharsalia in 1808. Pharsalia was established as predominately a farming community with grist and saw mills located along various streams within the town. In 1926 Pharsalia became the first State Game Refuge in NY. The Pharsalia Wildlife Management Area (4,689 acres) and Pharsalia Woods State Forest (9,151 acres) both reside within the total 25,000 acres of the town. The town was also the location for Camp Pharsalia, which was a NYS Corrections minimum security detention facility. Camp Pharsalia was operational from 1952 to 2009.

The Town of Pharsalia is governed by an elected five member Town Board composed of a Town Supervisor, who also represents the town at the County Board of Supervisors, and four Council members. This governing body will assume responsibility for adoption and implementation of this plan.

9.23.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.23-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.23-1 at the end of this



annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.23-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None identified										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.23.4 Capability Assessment

The Town of Pharsalia performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.23.4). The Town of Pharsalia identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.



Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Pharsalia and where hazard mitigation has been integrated.

Table 9.23-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local, State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	No	-	Local	-	No	-	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management	No	-	Local, State	NYSDEC permits required for any major construction projects	Yes	-	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	No	-	Local	-	No	-	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	No	-	Local	-	No	-	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	NYS DEC	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	Adopted 12/1983, Amended 9/8/2010	Federal, State, Local	Administered by County Code Official under an MOU with Town – Town of Pharsalia Code Enforcement Officer?	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Local Law No. 1 of the year 2010, A local law entitled "Flood Damage Prevention", enacted by the Town Board of Pharsalia. It is the purpose of this local law to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to: <ol style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program. The areas of special flood hazard for the Town of Pharsalia, Community Number 361091 are identified and defined on the applicable documents prepared by the Federal Emergency Management Agency as certain Flood Insurance Rate Map Panel Numbers whose effective date is November 26, 2010. The Town of Pharsalia Code Enforcement Officer is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4)	Yes	EPA Phase II Stormwater Rule	Federal	?	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Pharsalia Fire District/Chenango County EMS	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Climate Change	No	NYS Executive Law, Article 75	State	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	Yes	Not Indicated	County	Chenango County EMS	No	-	-
Comment:							
Disaster Reconstruction Ordinance	Yes	Not Indicated	County	Chenango County EMS	No	No	-
Comment:							
Other	Yes	-	-	-	-	-	-
Comment: <ul style="list-style-type: none"> Junkyard Regulations. Adopted 1955 Sanitary Code. Adopted 2004 Refuse Disposal. Adopted 1992 							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	Not Indicated	State	NYSDEC permit and Federal Agencies	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Not Indicated	Local, State	NYSDEC	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	N/A	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	County	Local OEM	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	-	County	Local OEM	Yes	No	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other	Yes	-	-	-	-	-	-
Comment: <ul style="list-style-type: none"> Emergency Response Plan. State Mandated 							

Table 9.23-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Chenango County Code Enforcement
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Pharsalia.

Table 9.23-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	No	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support



Resources	Available? (Yes or No)	Department/ Agency/Position
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Town Supervisor
Professionals trained in conducting damage assessments	Yes	Chenango County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	MOU with Chenango County NFIP Floodplain Administrator
Surveyor(s)	Yes	County Highway Department if available
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Pharsalia Fire Department
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Pharsalia.

Table 9.23-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes, available to residents in past
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Pharsalia.

Table 9.23-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes, Town Supervisor



Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Pharsalia.

Table 9.23-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable
NP Not participating
- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.23-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium



Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Pharsalia.

Table 9.23-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Pharsalia	1	0	\$0	0	-	0

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Pharsalia has completed Community Assistance Visits (CAV), with the most recent visit completed in 2008.



Regulatory

The Town of Pharsalia Flood Damage Prevention Ordinance (FDPO) was last updated on September 8, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

- **Floodplain Management/Infrastructure Protection:** Control flooding along the banks of the Canasawacta Creek by reinforcing the banks, divert the water flow to slow or prevent erosion, as directed by NYSDEC. Prevention and maintenance will maintain the integrity of the Canasawacta Creek.
- **Floodplain Management/Infrastructure Protection:** Continue/Enhance Stormwater Management by increasing the size of culverts when and where necessary; and review or initiate routine maintenance plans
- **Floodplain Management/Infrastructure Protection:** Control construction of beaver dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions. Problem generally is initiated from State wetland areas, no specific water bodies.
- **Floodplain Management/Infrastructure Protection:** Retrofit flood-prone roadways that are critical to infrastructure and are adjacent to NYS wetland areas by increasing culvert size and elevating low areas.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

NY-23 and County Road 10 have been identified as possible evacuation routes within the Town, however depending on road conditions, residents should refer to the Chenango County Emergency management Website for up-to-date information and best routes.

Sheltering

The Town of Pharsalia has not designated emergency shelters but will evaluate the use of the municipal hall to serve as a warming/cooling center in the event of power outages. In the event that sheltering is needed shelters will be determined at the time of an emergency, in accordance with the County CEMP.



Temporary Housing

The Town of Pharsalia has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of Pharsalia did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.23.5 Hazard Event History Specific to the Town of Pharsalia

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Pharsalia's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.23-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.23-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
Aug 13 - 15 2018	DR-4397	Yes	Heavy rainfall resulted in flash flooding washing out roads and ditches	Damage to roads & ditches
Oct 31 – Nov 1 2019	DR-4472	Yes	Heavy rainfall resulted in flash flooding washing out roads and ditches	Damage to roads & ditches. Numerous water rescues were underway throughout the Town of Pharsalia.

Notes:

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

9.23.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Pharsalia's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.



- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.23-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None identified				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Pharsalia. The Town of Pharsalia has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Pharsalia indicated the following:

- Agreement with calculated rankings



Table 9.23-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Medium	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Major storms have created washout problems primarily on three roads: Center Road, North Rd., One-Eye Road and Fred Stewart Road intersecting with State Rt. 23.
- Perkins Pond Dam & County Route 42

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- No Response

9.23.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.23-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
TPH-1	Washout Issues	Flood, Severe Storm	Town Highway Department	Center Road, North Road, and One-Eye Road	Ongoing Capability	Cost	-	The Town continues to monitor road conditions during and after severe storm events, and makes repairs as needed. See Table 9.23-15 (Proposed Hazard Mitigation Initiatives) for more information.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPH-2 (Former TPH-1)	Canasawacta Creek Mitigation	Flooding (Program initiated from 2006)	NYSDEC, Chenango Co. Soil/Water; Fish & Wildlife	Control flooding along the banks of the Canasawacta Creek by reinforcing the banks, divert the water flow to slow or prevent erosion, as directed by NYSDEC. Prevention and maintenance will maintain the integrity of the Canasawacta Creek.	Ongoing Capability	Cost	-	The Town continues to work with Chenango County Soil and Water Conservation District and the NYSDEC to mitigate flooding of the Canasawacta Creek through regular monitoring of flood levels and following recommendations of the department.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPH-3 (Former TPH-2)	Stormwater Management Upgrades	Flooding, Severe Storms	Town Highway Department, Chenango County Soil/Water; NYDEC	Continue/enhance stormwater management by increasing the size of culverts when and where necessary; and review or initiate routine maintenance plans.	Ongoing	Cost	-	See Mitigation Action # 2021-T. Pharsalia-002 for more.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPH-4 (Former TPH-3)	Beaver Dam Monitoring and Control	Flooding	NYSDEC, Town of Pharsalia DPW	Control construction of beaver dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent	Ongoing	Cost	-	The Town continues to monitor beaver activity and make road repairs to reduce erosion and flooding as necessary. See Mitigation Action # 2021-T. Pharsalia-001 for more.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				to town roads. These areas often flood creating hazardous conditions. Problem generally is initiated from State wetland areas, no specific water bodies.				
TPH-5 (Former TPH-4)	Retrofit flood-prone roadways	Flooding, Severe Storms	Town Highway Department, County Highway Dept.	Retrofit flood-prone roadways that are critical to infrastructure and are adjacent to NYS wetland areas by increasing culvert size and elevating low areas.	Ongoing	Cost	-	The Town continues to monitor road conditions during and after severe storm events, and makes repairs as needed. See Table 9.23-15 (Proposed Hazard Mitigation Initiatives) for more information.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPH-6 (Former TPH-5, -6)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	The Town continues to support hazard mitigation initiatives from state, county and federal levels as part of their daily operations.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Pharsalia has not identified any mitigation projects or initiatives apart from those included in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Pharsalia worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.23-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Pharsalia would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.23-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.23-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Pharsalia-001	Rollie Brown Road	1, 2, 4, 6, 7	Severe Storm, Flood	<p>Problem: The Town has experienced ditches washing out, which could cause flooding on western end of Rollie Brown Road, towards County Rd. 8. Additionally, there is a beaver dam backing up water at culvert under the roadway.</p> <p>Solution: The Pharsalia Highway Department will shore up ditches with Rip-rap stone and fix culverts as needed, and work with NYSDEC to determine action plan for beavers and implement recommendations as needed.</p>	No	No	4 months	Pharsalia Town Highway Department, NYSDEC	\$10,000	High, keeps roadway from washing out	NYSDEC, Bridge NY, Municipal Budget	High	SIP, NSP	SIP, NR
2021-T. Pharsalia-002	Billy Brown Road	1, 2, 4, 6	Severe Storm, Flood	<p>Problem: Areas of Billy Brown Road have experienced ditches washing out, which could cause flooding on northern end of Road, towards South Otselic.</p> <p>Solution: The Town of Pharsalia Highway Department will shore up ditches with Rip-rap stone and fix culverts as needed.</p>	No	No	2 months	Pharsalia Town Highway Department	\$18,000	High, keeps roadway from washing out	Bridge NY, Municipal Budget, FEMA FMA	High	SIP	SP
2021-T. Pharsalia-003	Class B and C Dam Outreach	1, 2, 3, 4, 5, 7	Flood	<p>Problem: The NYSDEC owns two dams located within the Town of Pharsalia. The Jackson Pond Dam is classified as an "intermediate hazard" Class B dam, while the Balsam Swamp Dam is classified as a "high hazard" Class C dam.</p> <p>Solution: The Town of Pharsalia will collaborate with the NYSDEC on necessary EAP updates, as well as inspections and engineering assessments. If significant increased risk is found at the Balsam Swamp Dam, the Town and NYSDEC Division of Lands and Forests will work together to develop a plan to update and improve the conditions of the dam.</p>	Yes	No	Short, within 5 years	Town of Pharsalia, NYSDEC	Low	High	Municipal Budget	High	EAP	PR



Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.23-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Pharsalia-001	Rollie Brown Road	1	1	1	1	1	0	0	1	1	1	1	1	0	0	10	High
2021-T. Pharsalia-002	Billy Brown Road	1	1	1	1	1	0	0	1	1	1	1	1	0	0	10	High
2021-T. Pharsalia-003	Class B and C Dam Outreach	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.23.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.23-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood		001, 002	001	003	003			001	001, 002	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001, 002	001					001	001, 002	
Severe Winter Storm										
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.23.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Pharsalia followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: The Supervisor's Office and Highway Department. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

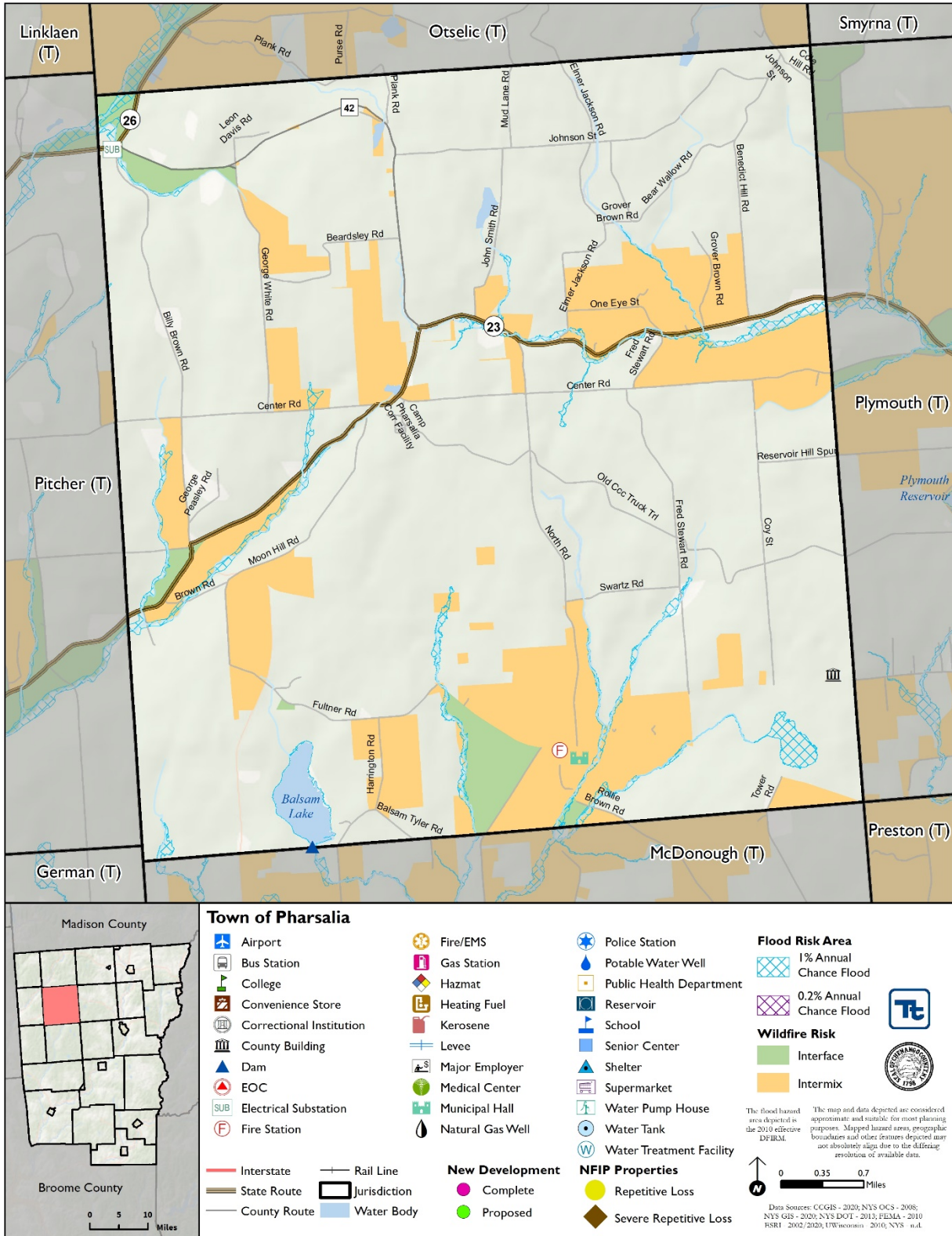
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.23.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Pharsalia that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Pharsalia has significant exposure. The map is illustrated below.



Figure 9.23-1. Town of Pharsalia Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Rollie Brown Road		
Project Number:	2021-T. Pharsalia-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Storm, Flood		
Description of the Problem:	The Town has experienced ditches washing out, which could cause flooding on western end of Rollie Brown Road, towards County Rd. 8. Additionally, there is a beaver dam backing up water at culvert under the roadway.		
Action or Project Intended for Implementation			
Description of the Solution:	The Pharsalia Highway Department will shore up ditches with Rip-rap stone and fix culverts as needed, and work with NYSDEC to determine action plan for beavers and implement recommendations as needed.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year (1%) flood	Estimated Benefits (losses avoided):	Keeps roadway from washing out
Useful Life:	50 years	Goals Met:	1, 2, 4, 6, 7
Estimated Cost:	\$10,000.00	Mitigation Action Type:	SIP, NSP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within next year
Estimated Time Required for Project Implementation:	4 months	Potential Funding Sources:	NYSDEC, Bridge NY, Municipal Budget
Responsible Organization:	Pharsalia Town Highway Department, NYSDEC	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate Roadway	\$1M	Not feasible as road intersects State Forest
	Address beaver dams only	\$3,000	Does not mitigate erosion/wash out concerns after storms
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Rollie Brown Road	
Project Number:	2021-T. Pharsalia-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces erosion/washout events
Property Protection	1	Protects roadway
Cost-Effectiveness	1	
Technical	1	Highway Department has capability
Political	1	Town Board supports project
Legal	0	
Fiscal	0	Town will need financial support
Environmental	1	No known issues, will follow NYSDEC recommendations for beaver dams
Social	1	
Administrative	1	
Multi-Hazard	1	Severe storm, flooding
Timeline	1	Can be completed within scope of HMP
Agency Champion	0	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Billy Brown Road		
Project Number:	2021-T. Pharsalia-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Storm, Flood		
Description of the Problem:	Areas of Billy Brown Road have experienced ditches washing out, which could cause flooding on northern end of Road, towards South Otselic.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Pharsalia Highway Department will shore up ditches with Rip-rap stone and fix culverts as needed.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year (1%) flood	Estimated Benefits (losses avoided):	Keeps roadway from washing out
Useful Life:	50 years	Goals Met:	1, 2, 4, 6
Estimated Cost:	\$18,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6 months – 1 year
Estimated Time Required for Project Implementation:	2 months	Potential Funding Sources:	Bridge NY, Municipal Budget, FEMA FMA
Responsible Organization:	Pharsalia Town Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Close Roadway	N/A	Unfeasible – is essential roadway
	Elevate Roadway	N/A	Unfeasible – roadway is too long cannot be closed for extended period to elevate
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Billy Brown Road	
Project Number:	2021-T. Pharsalia-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces erosion/washout events
Property Protection	1	Protects roadway
Cost-Effectiveness	1	
Technical	1	Highway Department has capability
Political	1	Town Board supports project
Legal	0	
Fiscal	0	Town will need financial support
Environmental	1	No known issues, will follow NYSDEC recommendations for beaver dams
Social	1	
Administrative	1	
Multi-Hazard	1	Severe storm, flooding
Timeline	1	Can be completed within scope of HMP
Agency Champion	0	
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



9.24 Town of Pitcher

This section presents the jurisdictional annex for the Town of Pitcher. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Pitcher's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.24.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Pitcher's hazard mitigation plan primary and alternate points of contact.

Table 9.24-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Brad Hotaling, Highway Superintendent 156 Pitcher Springs Rd, Pitcher, NY 13136 607-863-4460 bradpitcherhwy@outlook.com	Jeffrey Blanchard, Town Supervisor 156 Pitcher Springs Rd, Pitcher, NY 13136 607-863-4494 blanchardjeffrey@hotmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.24.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 803.

The Town of Pitcher is on the west border of Chenango County, west of the City of Norwich.

The town was first settled around 1794. The town, in a region formerly known as the "Gore", was acquired by the Holland Land Company. The Town of Pitcher was formed from parts of German and Lincklaen in 1827. The size of Pitcher was increased in 1833 with an additional portion of Lincklaen.

The Town of Pitcher is governed by an elected five member Town Board composed of a Town Supervisor, who also represents the town at the County Board of Supervisors, and four Council Members. This governing body will assume responsibility for adoption and implementation of this plan.

9.24.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.24-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.24-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.



Table 9.24-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
Town Garage/Town Offices	Comm.		1		102.-1-7		None		Proposed	
Oak Hill Subdivision	Res.		23 lots		76.-1-10.3 & 76.-1-9.3		Partial Zone A		Proposed	
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.24.4 Capability Assessment

The Town of Pitcher performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.24.4). The Town of Pitcher identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.



Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Pitcher and where hazard mitigation has been integrated.

Table 9.24-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan"11 or "in accordance with a comprehensive plan."12 Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 9/13/1988 1989?	Local	Town Planning Board	No	Yes	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730). <ul style="list-style-type: none">Local Law No 3 of the year 1989, A local law known as "Subdivision Regulations" enacted by the Town Board of the Town of Pitcher. For the purpose of providing for orderly future growth and development of land, and affording adequate facilities for housing, transportation, distribution, comfort, convenience, safety, health, and welfare of the populations, the Town Planning Board of the Town of Pitcher adopts the following regulations for subdivision of land in the Town, acting under authority granted by the Town Board pursuant to the provisions of Article 1 of the Town Law of the State of New York.The Planning Board shall review the location of the proposed subdivision for the presence of any adverse natural considerations limiting development on the site as indicated by the Natural Resource Composite Maps on file in the Town offices. If the site falls into areas on the soils map denoted as having "moderate", "severe", or "very severe" limitation; within flood hazard areas, or areas of unique hydrologic or natural habitat areas, (including wetlands), the Planning Board may require the subdivider to consult with the appropriate technical review or assistance agencies.The Planning Board may require that design techniques such as clustering (in accordance with zoning Section 308) be used to avoid development in these critical resource areas, and shall not approve a sketch plan which has failed to adequately address these critical resources concerns soils, flood hazards, hydrologic and natural habitat resources).Land subject to serious or regular flooding shall not be subdivided for residential occupancy or for such other uses as may increase danger to life or property or aggravate the flood hazard, but such land may be used for such uses, subject to any zoning regulations, or in such a way, that the flood danger to this property and other upstream or downstream properties will not be increased and periodic or occasional inundation will not be a substantial threat to life or property. The provisions of this section shall apply to all land falling within the 100 year flood limit as shown on maps prepared by the Town of Pitcher and the Department of Housing and Urban Development as periodically amended.Development of steep slope (over 12%) sites will be conditionally acceptable only if there is no prudent or feasible alternative site, and erosion and sedimentation control measures are incorporated in the design, construction, and operation of the development according to standards set by the U.S. Soil Conservation Service							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Stormwater Management Regulations	Yes	Subdivision Regulations	Local	Town Planning Board	Yes	Yes	See above
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System (SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	Yes	Subdivision Regulations	Local	Local Planning Board	No	Yes	See above
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	No	-	Local	-	No	-	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	-	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Adopted 11/1984, Amended 11/9/2010	Local, State, Federal	Administered by County Code Official under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Local Law No. 1 of the year 2010, A local law entitled "Flood Damage Prevention" enacted by the Town Board of the town of Pitcher. The Town Board of the Town of Pitcher finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Pitcher and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> (1)regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<p>(5) regulate the construction of flood barriers which will unnaturally divert flood waters, or which may increase flood hazards to other lands, and;</p> <p>(6) qualify and maintain for participation in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> The areas of special flood hazard for the Town of Pitcher, Community Number 361092, are identified and defined on the applicable documents prepared by the Federal Emergency Management Agency as certain Flood Insurance Rate Map Panel Numbers whose effective date is November 26, 2010. The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. In order to prevent potential flood damage to certain facilities that would result in serious danger to life and health, or widespread social or economic dislocation, no new critical facility shall be located within any Area of Special Flood Hazard, or within any 500-year flood zone shown as a B zone or a Shaded X zone on the Community's Flood Insurance Rate Maps 							
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	-	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	NYS Executive Law, Article 75	State	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	Local	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	Local	-	No	-	-
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	-	-	-	-	-	-
Comment: Junkyard Ordinance. Adopted 1967							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Sanitary Code. Adopted 10/1989							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	No	-	Local	-	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local	-	No	Yes	See above
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	County	County OEM	Yes	Yes	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	-	Local	Chenango County OEM	Yes	Yes	N/A
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Other: Special Purpose Ordinances (such as critical or sensitive areas)							
Comment: Emergency Response Plan. State Mandated							

Table 9.24-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Chenango County Code Enforcement
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Pitcher.

Table 9.24-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	Highway Department clears ditches
Mutual aid agreements	Yes	NYSDOT
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	Yes	Chenango County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	MOU agreement to utilize services of County Floodplain Administrator
Surveyor(s)	Yes	County Highway Department if available manpower



Resources	Available? (Yes or No)	Department/ Agency/Position
Emergency Manager	Yes	Chenango County Emergency Management Office
Grant writer(s)	Yes	County Planning & Development; Cornell Cooperative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Pitcher.

Table 9.24-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes. Fees for Subdivision developments
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Pitcher.

Table 9.24-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	The Town does not have a Municipal Website
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Yes – Hyper-Reach and Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No



Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Pitcher.

Table 9.24-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	No	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.24-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating



National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Pitcher.

Table 9.24-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Pitcher	0	0	\$0	0	-	0

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The Town of Pitcher has not completed any Community Assistance Visits (CAV), due to its location outside of the SFHA.

Regulatory

The Town of Pitcher Flood Damage Prevention Ordinance (FDPO) was last updated on November 9, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures,



which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation “capabilities”:

- **Infrastructure Protection/Floodplain Management:** Enhance stormwater management by replacing existing culverts with larger units to increase the flow and direction.
- **Floodplain Management:** Consider non-structural flood hazard mitigation alternatives for at risk properties within the floodplain.
- **Infrastructure Protection/Floodplain Management:** Retrofit flood-prone roadways that are critical to infrastructure specifically: Oak Hill, Pink Hill., Bauman, Hakes-Calhoun, Burdick and Joe Roads which have on-going problems.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

NY-26 and NY-23 have been identified as potential evacuation routes within the Town, however due to changes in road conditions, residents should refer to the Chenango County Emergency Management website for up-to-date conditions and best routes.

Sheltering

The Town of Pitcher has not designated emergency shelters but will evaluate the use of the municipal hall to serve as a warming/cooling center in the event of power outages. In the event that sheltering is needed shelters will be determined at the time of an emergency, in accordance with the County CEMP.

Temporary Housing

The Town of Pitcher has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of Pitcher did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.24.5 Hazard Event History Specific to the Town of Pitcher

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Pitcher’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.24-11 provides details regarding municipal-specific loss and damages the



Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.24-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
October 31, 2019	Flash Flood	DR-4472-NY	A low-pressure system brought bands of thunderstorms and heavy rains during the day of October 31. Localized amounts reached 5 inches, producing areas of flash flooding.	Numerous water rescues were underway throughout the Town of Pharsalia, near Pitcher.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.24.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Pitcher's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

**Table 9.24-12. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None identified at this time				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Pitcher. The Town of Pitcher has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Pitcher indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.24-13. Hazard Ranking

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Low	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Upgrade culvert on Bauman Road, Mullenax Road continuous maintenance issue, and Pink Hill Road, a seasonal road, culvert inadequate creating drainage problems. Replace with a squash culvert.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- None Identified

9.24.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.



Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.24-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TPI-1 (Former TPI-1)	Enhance stormwater management by replacing existing culverts with larger units to increase the flow and direction. Specific projects and problem areas include: <ul style="list-style-type: none">Upgrade culvert on Bauman Road.Mullenax Road continuous maintenance issue.Pink Hill Road, a seasonal road, culvert continues to inadequately address drainage problems. Replace with squash culvert.							
	See above	Flood, Severe Storms	Town Highway Department, Chenango County Soil/Water; NYDEC	See above	In Progress	Cost	-	Continue in 2021 update. See 2021-T. Pitcher-001.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPI-2 (Former TPI-2)	Consider non-structural flood hazard mitigation alternatives for at risk properties within the floodplain.	Flood, Severe Storm, Severe Winter Storms	Pitcher Town Board, FEMA,SEMO	Consider non-structural flood hazard mitigation alternatives for at risk properties within the floodplain.	Ongoing Capability	Cost	-	This an ongoing effort of the Town to support where needed. Due to the lack of floodplains within the Town, this project will be discontinued.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPI-3 (Modified Former TPI-3)	Retrofit flood-prone roadways	Flood, Severe Storm, Severe Winter Storm	Town Highway Department, County Highway Department	Retrofit flood-prone roadways that are critical to infrastructure specifically: Oak Hill, Pink Hill, and Bauman Roads which have on-going problems.	In Progress	Cost	-	Continue in 2021 update. See 2021-T. Pitcher-002.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPI-4 (Former TPI-4, -5)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by	See above	Ongoing Capability	Cost	-	Support of Federal, State, and County mitigation programming is an ongoing capability of the Town.
						Level of Protection	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
			relevant local department leads			Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Pitcher has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- None Identified

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Pitcher worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.24-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Pitcher would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.24-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.24-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Pitcher-001	Bauman Road Culvert	2, 3, 4, 6	Flood, Severe Storm	Problem: The existing culvert on Bauman Road is undersized and cannot handle extreme rain and snow melt. Solution: The Current culvert size is estimated at 5x3 feet and is undersized for the capacity of the floodwaters that pass over the road. The Town DPW will replace the existing culvert with a large concrete/cement box culvert. Estimated size needed would be 5x10 feet to reach the needed capacity to reduce flood risk.	No	No	Short; To be completed by summer 2021	Town of Pitcher DPW	Medium; \$65,000	High; Eliminates need for road closures and reduces property damages	FEMA HMA; NYSDOT	High	SIP	SP; PP; ES
2021-T. Pitcher-002	Pink Hill Road	2, 3, 4, 6	Flood, Severe Storm	Problem: The current culvert on Pink Hill Road is too small to handle extreme rain fall and snow melt, resulting in flash flood events. Solution: The Town will replace the existing culvert with larger culvert more appropriately sized to handle the excess water flows that have been experienced in recent years. The Highway Department estimates around \$20,000 is needed to upsize the current culvert and replace with a larger squash pipe. The Highway Department will oversee the completion of the project.	No	No	Short; to be completed summer 2021	Town of Pitcher	Medium; \$20,000	High; eliminates road closures and property damages	Municipal Budget; FEMA HMA; NYSDOT	High	SIP	SP; PP

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.


Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.



N/A Not applicable
NFIP National Flood Insurance Program
OEM Office of Emergency Management

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.24-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Pitcher-001	Bauman Road Culvert	1	1	1	1	1	1	-1	1	1	1	1	0	1	0	10	High
2021-T. Pitcher-002	Pink Hill Road	1	1	1	1	1	1	0	0	0	1	1	1	1	0	9	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.24.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.24-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA			CRS						
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood		001, 002				001, 002			001, 002	001
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001, 002				001, 002			001, 002	
Severe Winter Storm										
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.24.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Pitcher followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: The Highway Department and Supervisor's Office. The Town Supervisor and Highway Superintendent represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

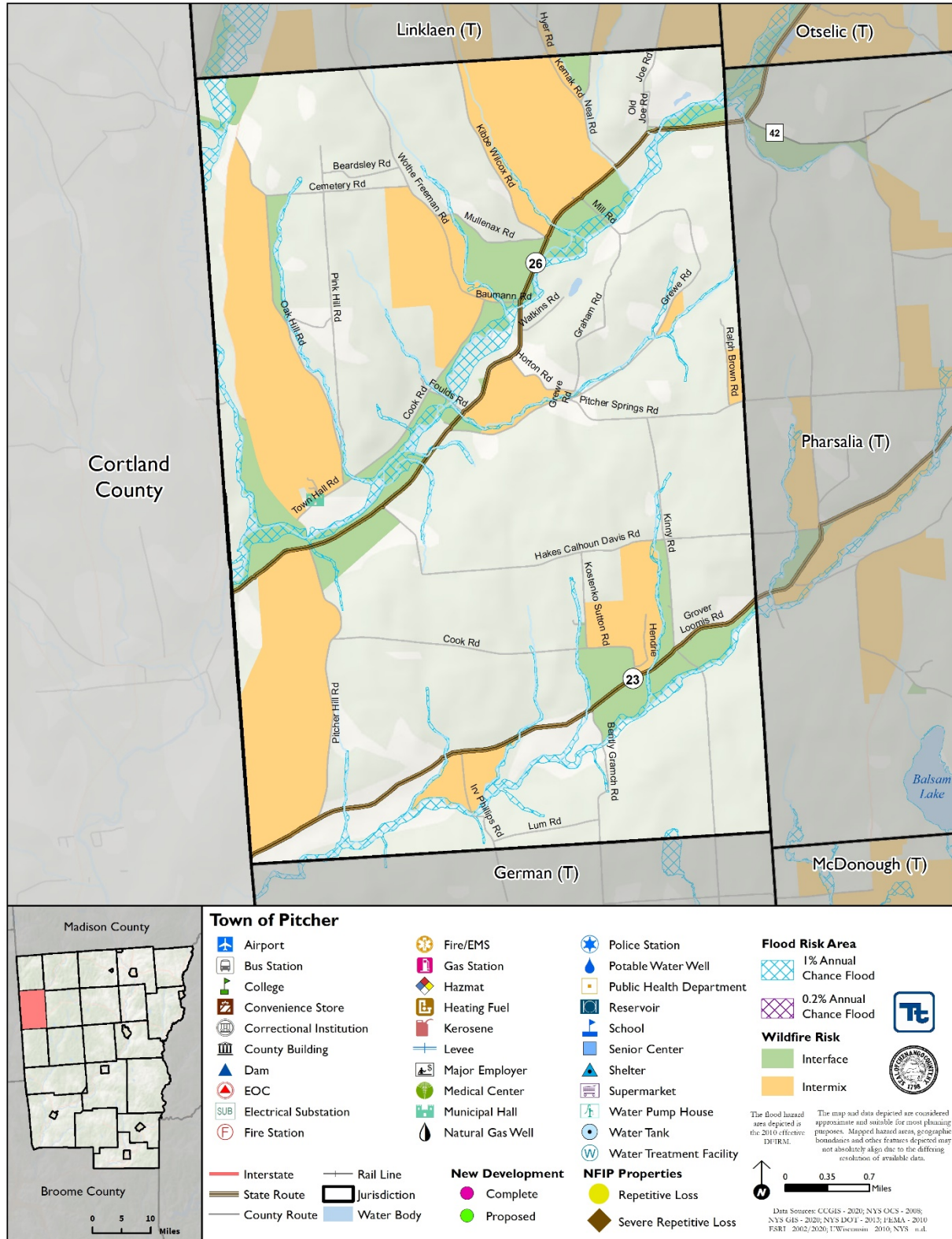
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.24.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Pitcher that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Pitcher has significant exposure. The map is illustrated below.



Figure 9.24-1. Town of Pitcher Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Bauman Road Culvert		
Project Number:	2021-T. Pitcher-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flooding, Severe Storm		
Description of the Problem:	The existing culvert on Bauman Road is undersized and cannot handle extreme rain and snow melt.		
Action or Project Intended for Implementation			
Description of the Solution:	The Current culvert size is estimated at 5x3 feet and is undersized for the capacity of the floodwaters that pass over the road. The Town DPW will replace the existing culvert with a large concrete/cement box culvert. Estimated size needed would be 5x10 feet to reach the needed capacity to reduce flood risk.		
Is this project related to a Critical Facility?		<input type="checkbox"/>	<input type="checkbox"/> No
Is the critical facility located in the 1% annual chance flood area?		<input type="checkbox"/>	<input type="checkbox"/> No
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	1% Flood	Estimated Benefits (losses avoided):	No more road closure or property damage
Useful Life:	100 years	Goals Met:	2, 3, 4, 6
Estimated Cost:	\$65,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Summer 2021
Estimated Time Required for Project Implementation:	Three weeks	Potential Funding Sources:	FEMA HMA; NYSDOT
Responsible Organization:	Town of Pitcher	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Raise Roadway	\$1M+	Not cost effective or feasible
	Replace current culvert with bridge	\$1M+	Not cost effective or technically feasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Bauman Road Culvert	
Project Number:	2021-T. Pitcher-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces risk for future injuries
Property Protection	1	Will prevent property damage from flood water
Cost-Effectiveness	1	Should last very long time
Technical	1	The town highway dept. can help with the work
Political	1	Local people will not continue to have detour around flooded roads
Legal	1	Will work with DEC regulations
Fiscal	-1	Cannot afford to accomplish this without help
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Will prevent road closure and property damage
Timeline	0	
Agency Champion	1	Many residences will benefit from this up grade
Other Community Objectives	0	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Pink Hill Road Culvert		
Project Number:	2021-T. Pitcher-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Yearly flooding		
Description of the Problem:	The current culvert on Pink Hill Road is too small to handle extreme rain fall and snow melt, resulting in flash flood events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will replace the existing culvert with larger culvert more appropriately sized to handle the excess water flows that have been experienced in recent years. The Highway Department estimates around \$20,000 is needed to upsize the current culvert and replace with a larger squash pipe. The Highway Department will oversee the completion of the project.		
Is this project related to a Critical Facility?			No
Is the critical facility located in the 1% annual chance flood area?			-
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	1% Flood	Estimated Benefits (losses avoided):	No more road closure or property damage
Useful Life:	100 years	Goals Met:	2, 3, 4, 6
Estimated Cost:	\$20,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Summer 2021
Estimated Time Required for Project Implementation:	Three days	Potential Funding Sources:	Municipal Budget; FEMA HMA; NYSDOT
Responsible Organization:	Town of Pitcher	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate Roadway	\$1M+	Pink Hill Rd is a seasonal road, not cost effective
	Re-route water flows	N/A	Not an environmentally sound project idea, not cost effective, will disrupt nearby State forest
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Pink Hill Road Culvert	
Project Number:	2021-T. Pitcher-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Will prevent property damage from flood water
Cost-Effectiveness	1	Should last very long time
Technical	1	The town highway dept, can help with the work
Political	1	Local people will not continue to have detour around flooded roads
Legal	1	Will work with DEC regulations
Fiscal	0	Will adjust budget to pay for culvert
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	Will prevent road closure and property damage
Timeline	1	
Agency Champion	1	Reduce road wash out
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	



9.25 Town of Plymouth

This section presents the jurisdictional annex for the Town of Plymouth. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Plymouth's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.25.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Plymouth's hazard mitigation plan primary and alternate points of contact.

Table 9.25-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Rodney Oakley, Highway Superintendent 3461 State Highway 23 S. Plymouth, NY 13844 607-334-7494 plymouthhighway@frontier.com	Grace Nucero-Alger, Town Supervisor 3461 State Highway 23 S. Plymouth, NY 13844 607-334-6799 gnaugh8@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.25.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 1,804.

The Town of Plymouth is an interior town north of the center of Chenango County. The Town of Plymouth is located northwest of the City of Norwich and bordered by: a small portion of the Town of Norwich on the southeast corner; Town of North Norwich on the east; Town of Pharsalia on the west, Town of Preston on the south and the Town of Smyrna on the north. New York State Highway 23 is an east-west highway which passes through the middle of the town.

The first settlements in the Town of Plymouth were made about 1794 by several French families. On April 7, 1806 the Town of Plymouth was incorporated from the Town of Norwich. The hilly terrain and valley streams provided good sites for the numerous mills scattered around the town, as well as an early hydro-power electric generating plant in South Plymouth. The soil type is generally gravel/clay loam adapting well to the primary business of dairy farming. In the mid to late 1800's there were five (5) dairy related factories which were serviced by the Auburn Branch of the Midland Railroad. Typical of self-sustaining rural areas many small support businesses thrived: blacksmith, distillery, taverns, country stores and a hotel. The onset of the industrial revolution and "progress" with the invention of the automobile, electricity, communication systems, etc., eventually resulted in the demise of the businesses, the railroad and many farms. Today, Plymouth is primarily a "bedroom" community with several small family related businesses: restaurant/golf course, automotive shops, greenhouse, but it primarily relies on Norwich and the surrounding towns for employment opportunities (History of Chenango and Madison Counties-James H. Smith).



The Town of Plymouth is governed by an elected five member Town Board composed of a Town Supervisor, who also represents the town at the County Board of Supervisors, and four (4) Council members. This governing body will assume responsibility for adoption and implementation of this hazard mitigation plan. The Town has an elected: Town Highway Superintendent; two (2) Town Justices and a Town Clerk. There are several appointed positions and committees: Ordinance Enforcement Officer, Assessor, Dog Control Officer, Historian, Constable, Youth Committee and Planning Board.

9.25.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.25-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.25-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.25-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
Dollar General	Commercial		2 lots – one occupied by house		Corner of rt 16 and rt 21		Wildfire Interface Area		Proposed	
Cell Phone Tower	Utility/ Communications		1		Cook House Rd		NA		Proposed	

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.25.4 Capability Assessment

The Town of Plymouth performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.



- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.25.4). The Town of Plymouth identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Plymouth and where hazard mitigation has been integrated.

Table 9.25-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local, State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan" ¹¹ or "in accordance with a comprehensive plan." ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 7/11/2005	Local	Planning Board	No	No	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management	Yes	Subdivision Regulations	Local, State	NYSDEC permits required for any major construction projects	Yes	No	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	Yes	Subdivision Regulations	Local	Local Planning Board	No	No	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	No	-	Local	-	No	-	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	No	Title 6 NYCRR Part 617	State	-	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	Adopted 4/1987, Amended 10/11/2010	Federal, State, Local	Administered by County Code Official under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Local Law No. 1 of the year 2010. A local law entitled Flood Damage Prevention, enacted by the Town Board of the Town of Plymouth. The Town Board of the Town of Plymouth finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Plymouth and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ul style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program. The areas of special flood hazard for the Town of Plymouth , Community Number 361305, are identified and defined on the following documents prepared by the Federal Emergency Management Agency, namely, Flood Insurance Rate Map Panel Numbers: 36017C0070E, 36017C0090E, 36017C0095E, 36017C0210E, 36017C0220E, 36017C0230E, 36017C0231E, 36017C0233E, 36017C0240E & 36017C0241E, whose effective date is November 26, 2010. 							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
<ul style="list-style-type: none"> The Chenango County Department of Fire and Building Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. In order to prevent potential flood damage to certain facilities that would result in serious danger to life and health, or widespread social or economic dislocation, no new critical facility shall be located within any Area of Special Flood Hazard, or within any 500-year flood zone shown as a B zone or a Shaded X zone on the Community's Flood Insurance and implement this local law by granting or denying floodplain development permits in accordance with its provisions. 							
Municipal Separate Storm Sewer System (MS4)	No	EPA Phase II Stormwater Rule	Federal	-	Yes	-	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Plymouth Fire District/Chenango County EMS	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change Adaptation	No	-	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	Local	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	Local	-	No	-	-
Comment:							
Other	Yes	-	-	-	-	-	-
Comment: <ul style="list-style-type: none"> Junkyard Regulations. Adopted 7/1/1962, Amended 1995 Sanitary Code. Adopted 7/27/1984. Amended 2000 Refuse Disposal. 7/29/1995 Telecommunication Towers. Adopted 1/2002 Junk Storage. Adopted 11/2007 							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	No	-	State	NYSDEC permit and Federal Agencies	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local, State	NYSDEC	No	No	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment:							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Plymouth Fire District/Chenango County EMS	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	Local OEM	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other	Yes	-	-	-	-	-	-
Comment:							
• Emergency Response Plan. State Mandated							

Table 9.25-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, County Code Enforcement
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe	No



Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
If no, please quantitatively describe the level of buildout in the jurisdiction.	

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Plymouth.

Table 9.25-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	Highway Department
Mutual aid agreements	Yes	North Norwich Highway Departments, Pharsalia, Georgetown, Otselic, Lincklaen, SSA with County
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	Yes	County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	MOU With County
Surveyor(s)	Yes	County Highway Department
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Plymouth Fire Department
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Plymouth.

Table 9.25-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes, available to residents in past
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes



Financial Resources	Accessible or Eligible to Use (Yes/No)
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes-fee for subdivision development
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Plymouth.

Table 9.25-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Town Supervisor
Personnel skilled or trained in website development?	Contracted out for website development
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes if there is a flood, or information needed to get out on Supervisor's personal Facebook
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No Schools within the Town
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Plymouth.

Table 9.25-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A



Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Other	-	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.25-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperature	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Plymouth.

Table 9.25-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Plymouth	8	3	\$33,804	0	-	4

Source: FEMA 2019



Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Plymouth has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Plymouth has completed Community Assistance Visits (CAV), with the most recent visit completed in 2000.

Regulatory

The Town of Plymouth Flood Damage Prevention Ordinance (FDPO) was last updated on October 11, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

- **Infrastructure Protection/Floodplain Management:** Control flooding along the banks of the Canasawacta Creek by reinforcing the banks, divert the water flow to slow or prevent erosion, as directed by NYSDEC. Prevention and maintenance will maintain the integrity of the Canasawacta Creek.
- **Infrastructure Protection/Floodplain Management:** Continue/Enhance Stormwater Management by enlarging the culvert size in areas subject to continual washout. This will increase capacity and flow. Develop a long-term plan for improving storm water flow.
- **Infrastructure Protection/Floodplain Management:** Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is more prevalent in the State wetland areas that are adjacent to town roads. The Elmer Harris Road and Inman Road are areas often flooded creating hazardous conditions.



- **Floodplain Management:** Consider non-structural flood hazard mitigation alternatives for at risk properties by acquisition, relocation or elevation depending on feasibility. Especially properties in designated floodplain areas along the Canasawacta. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.
- **Infrastructure Protection/Floodplain Management:** Retrofit flood-prone roadways that are critical to infrastructure by increasing the number and capacity of culverts or raising the road level where necessary.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

State Highway 23, and SR 16 are used as evacuation routes for the Town of Plymouth.

Sheltering

The Plymouth Fire Department has been identified as a shelter location with a backup generator.

Temporary Housing

Field behind firehouse could house FEMA trailers but no sewage hookups. Commerce Chenango also works with families after loss of homes to house families in hotels.

Permanent Housing

While the Town of Plymouth did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.25.5 Hazard Event History Specific to the Town of Plymouth

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Plymouth's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.25-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.25-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
2018	Flood		Washed out culverts and seasonal roads (no winter maintenance) throughout the town; the center of town was completely blocked off 20+ sites	Put new culverts in many places, ditch work, head walls, \$240k damage replacement cost



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
2019	Flooding		Different spots from 2018 (7-8 locations)	Replacing culverts, ditch work \$80-100k damage replacement cost
2006	Flooding	Yes	Severe flooding and damages.	While this event impacted the community, due to lack of resources damage history has not been documented.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.25.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Plymouth's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

**Table 9.25-12. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None identified at this time				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Plymouth. The Town of Plymouth has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Plymouth indicated the following:

- Agreement with calculated rankings.
- Minimal reported floods caused by flash flooding from undersized culverts, but not common.

Table 9.25-13. Hazard Ranking Input

Drought	Disease Outbreak	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- NYS Rte 23 along the Canasawacta Creek: Loss of private mobile home and property (2011); Foster Park (public) loss of land and pavilion (2006).
- Homes along 23 corridors still flooding regularly route 23 is washed out
- Town used to have watershed committee and was dissolved and talks about bringing it back before Covid-19

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- CR 23 by the fire station in Plymouth



- Route 23W Canasawacta Creek needs to be moved back - over the years it's been pushed out by the roads and people's homes
- Large portions of the Town of Plymouth are very floodprone and the only place that is setup to be a shelter is the Plymouth Fire Department which only has limited capability to act as a shelter.

9.25.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.25-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
TPL-1 (Former TPL-1)	Control flooding along the banks of the Canasawacta Creek	Flood, Severe Storm (Program initiated from 2006 flooding)	NYSDEC, Chenango Co. Soil/Water; Fish & Wildlife	Reinforcing the banks, divert the water flow to slow or prevent erosion, as directed by NYSDEC. Prevention and maintenance will maintain the integrity of the Canasawacta Creek. Structure and infrastructure losses in this area include the loss of a private mobile home and property (2011), and Foster Park (public) loss of land and pavilion (2006).	Ongoing Capability	Cost	-	This is part of the Town's daily operations.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPL-2 (Former TPL-2)	Stormwater Management Upgrades	Flood, Severe Storm	Town Highway Department, Chenango County Soil/Water; NYDEC	Continue/enhance stormwater management by enlarging the culvert size in areas subject to continual washout. This will increase capacity and flow. Develop a long-term plan for improving storm water flow	Ongoing Capability	Cost	-	This is part of the Town's daily operations. See Mitigation Action #001.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPL-3 (Former TPL-3)	Beaver Dam Monitoring and Control	Flood	NYSDEC, Town of Plymouth DPW	Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is more prevalent in the State wetland areas that are adjacent to town roads. The Elmer Harris Road and Inman Road are	Ongoing Capability	Cost	-	The Town will continue to monitor beaver activity and address as necessary.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				areas often flooded creating hazardous conditions.				
TPL-4 (Former TPL-4)	Consider non-structural flood hazard mitigation alternatives for at risk properties	Flood, Severe Storm, Severe Winter Storm (heavy snow run-off)	Plymouth Town Board, FEMA, SEMO	By acquisition, relocation or elevation depending on feasibility. Especially properties in designated floodplain areas along the Canasawacta. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.	Ongoing Capability	Cost	-	This is part of the Town’s daily operations.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPL-5 (Former TPL-5)	Retrofit flood-prone roadways that are critical to infrastructure by	Severe Storms	Town Highway Department, County Highway Dept.	Increasing the number and capacity of culverts or raising the road level where necessary.	Ongoing Capability	Cost	-	This is part of the Town’s daily operations.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPL-6 (Former TPL-6, -7)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	This is part of the Town’s daily operations.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Plymouth has not identified any mitigation projects or initiatives apart from those included in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.25-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Plymouth would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.25-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.25-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Plymouth-001	Old State Route 23	2, 3, 4, 6	Flooding, Erosion, Severe Storm	Problem: The Creek has washed out the embankment along road during heavy rains and flooding events. Solution: The Town of Plymouth Highway Department will install large stackable stone wall along the Creek to protect the land from further erosion and stabilize the streambank.	No	No	Short, Summer 2021	Town of Plymouth	Medium, \$30,000	High, reduces erosion and flooding events	Taxpayers, Municipal Budget, FEMA HMA	High	SIP, NSP	SP, NR
2021-T. Plymouth-002	Hoag-Childes Road #1	1, 2, 3, 4, 6	Flooding, Erosion, Severe Storm	Problem: A section of Hoag-Childes Road has an old boiler pipe being used to aid in water drainage that has section 3 of the pipe coming apart. Solution: The Town of Plymouth Highway Department will replace the boiler pipe with an arch pipe to increase capacity and reduce flooding and ensure safe passage of the roadway.	No	No	Short, Summer 2021	Town of Plymouth	Medium, \$50,000	High, reduces erosion and flooding events	Bridge NY or Taxpayers, Municipal Budget	High	SIP, NSP	SP, NR
2021-T. Plymouth-003	Hoag-Childes Road #2	1, 2, 3, 4, 6	Flooding, Erosion, Severe Storm	Problem: There is an old box culvert on Hoag-Childes Road that is in bad shape and is too short for the width of the roadway. Solution: The Town of Plymouth Highway Department will replace with a larger arch pipe to reduce flooding and ensure safe passage on the roadway.	No	No	Short, Summer 2021	Town of Plymouth	Medium, \$50,000	High, reduces erosion and flooding events	Bridge NY or Taxpayers, Municipal Budget	High	SIP, NSP	SP, NR
2021-T. Plymouth-004	Intermediate Hazard Dam Outreach	1, 2, 3, 4, 5, 7	Flood	Problem: The privately owned Plymouth Reservoir Dam is located within the Town and is classified as an "intermediate hazard" Class B dam. Solution: The Town will conduct outreach to the dam owner about the condition of the dam and potential risks posed by a dam failure and support an inspection plan of the dam by an engineer in accordance with the existing EAP and NYSDEC Dam Safety guidelines. The Town will aid in	Yes	No	Short, within next 5 years	Town of Plymouth	Low	High	Municipal Budget	High	EAP	PR



Table 9.25-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				the development of an updated EAP as needed.										

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Communities and Infrastructure

Timeline:


The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:Yes  Critical Facility located in 1% floodplainMitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.25-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Plymouth-001	Old State Route 23	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2021-T. Plymouth-002	Hoag-Childes Road #1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2021-T. Plymouth-003	Hoag-Childes Road #2	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2021-T. Plymouth-004	Intermediate Hazard Dam Outreach	1	1	1	0	0	0	0	1	1	1	1	1	1	0	10	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.25.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.25-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood		001, 002, 003	001, 002, 003	004	004			001, 002, 003	001, 002, 003	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001, 002, 003	001, 002, 003					001, 002, 003	001, 002, 003	
Severe Winter Storm										
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.25.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Plymouth followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Supervisor's Office and the Highway Department. The Highway Superintendent represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

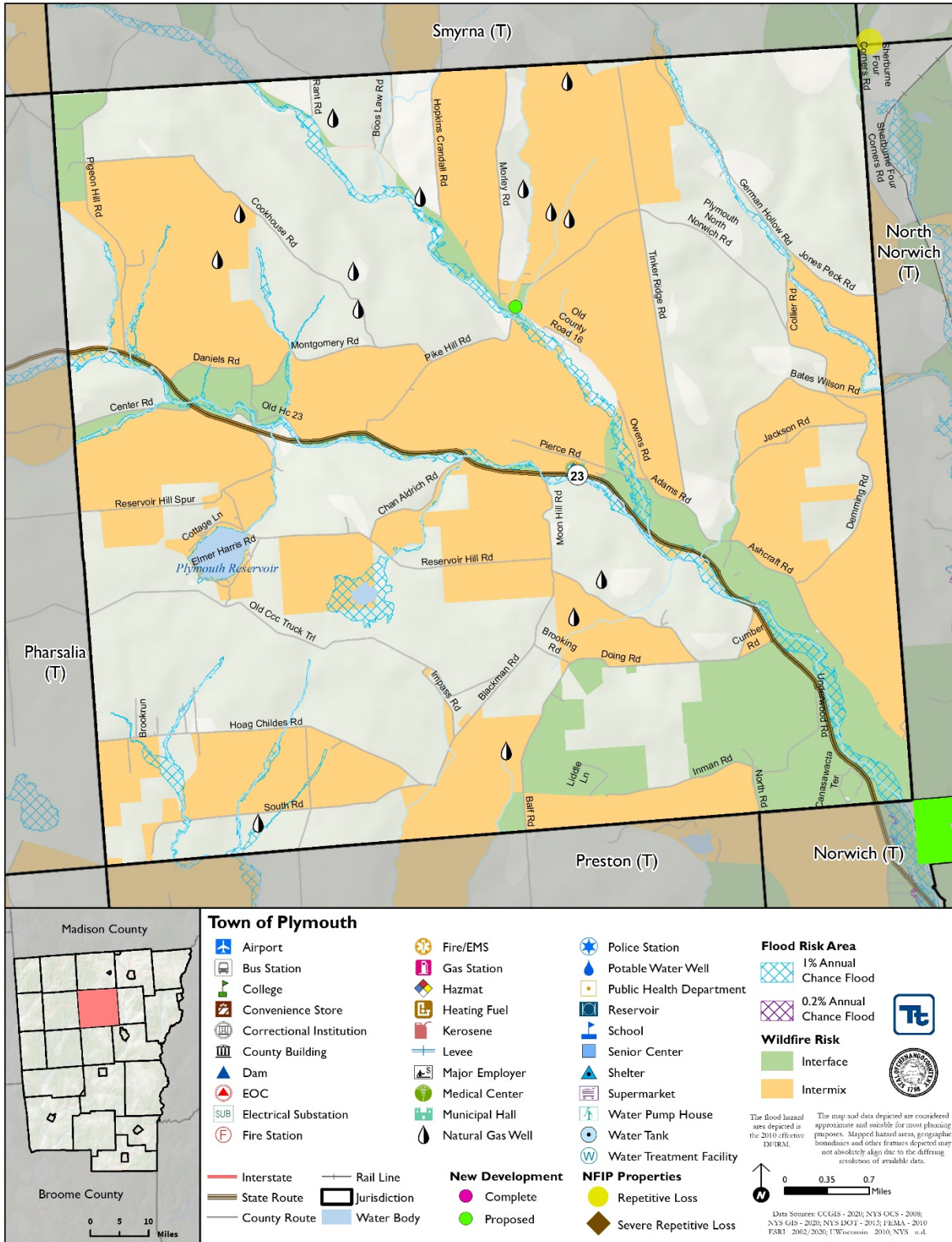
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.25.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Plymouth that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Plymouth has significant exposure. The map is illustrated below.



Figure 9.25-1. Town of Plymouth Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Old State Route 23		
Project Number:	2021-T. Plymouth-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flooding, Erosion		
Description of the Problem:	The Creek has washed out the embankment along road during heavy rains and flooding events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Plymouth Highway Department will install large stackable stone wall along the Creek to protect the land from further erosion and stabilize the streambank.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	High, reduces erosion and flooding events
Useful Life:	45 years	Goals Met:	2, 3, 4, 6
Estimated Cost:	Medium, \$30,000	Mitigation Action Type:	SIP, NSR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Summer 2021
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	Taxpayers, Municipal Budget, FEMA HMA
Responsible Organization:	Town of Plymouth Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate the streambank	N/A	Not environmentally sound, could still have erosion concerns
	Build a dam	\$3 M	Not cost effective, would displace residents living along the roadway
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Old State Route 23	
Project Number:	2021-T. Plymouth-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Prevents homes from falling into the creek
Property Protection	1	Protects land and the roadway from erosion
Cost-Effectiveness	1	
Technical	1	Highway Department can complete project
Political	1	
Legal	1	
Fiscal	0	Town may need funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flooding, erosion, severe storms
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Hoag-Childes Road #1		
Project Number:	2021-T. Plymouth-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flooding, Erosion, Severe Storm		
Description of the Problem:	A section of Hoag-Childes Road has an old boiler pipe being used to aid in water drainage that has section 3 of the pipe coming apart.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Plymouth Highway Department will replace the boiler pipe with an arch pipe to increase capacity and reduce flooding and ensure safe passage of the roadway.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	High, reduces erosion and flooding events
Useful Life:	40 years	Goals Met:	1, 2, 3, 4, 6
Estimated Cost:	Medium, \$50,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Summer 2021
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	Bridge NY or Taxpayers, Municipal Budget
Responsible Organization:	Town of Plymouth Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Upgrade crossing to elevated bridge	\$500,000	Not cost effective, or necessary
	Relocate roadway	N/A	Cannot divert roadway without crossing creek, will displace residents, unfeasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Action Worksheet





Project Name:	Hoag-Childes Road #1	
Project Number:	2021-T. Plymouth-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Prevents homes from falling into the creek
Property Protection	1	Protects land and the roadway from erosion
Cost-Effectiveness	1	
Technical	1	Highway Department can complete project
Political	1	
Legal	1	
Fiscal	0	Town may need funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flooding, erosion, severe storms
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	12	
Priority (High/Med/Low)	High	



9.26 Town of Preston

This section presents the jurisdictional annex for the Town of Preston. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Preston's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.26.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Preston's hazard mitigation plan primary and alternate points of contact.

Table 9.26-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Peter C. Flanagan, Town Supervisor 299 Preston Center Rd, Oxford NY 13830 607-334-4920 Flans1@frontier.com	Dan Macintosh, Highway Superintendent 299 Preston Center Rd, Oxford NY 13830 607-316-1090 Nyprestonhighway@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St Norwich, NY 13815 607-337-1795 or 607-226-0818 stevenf@co.chenango.ny.us	

9.26.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 1,044.

The Town of Preston is an interior town of Chenango County. The Town of is west of the City of Norwich and is the very center of Chenango County.

The Town of Preston consists of 20,030 acres located in the center of Chenango County in rural upstate New York. This area was first inhabited by Native Americans of the Iroquois Nation. The land remained the domain of the Native Americans until after the War of Independence as it lies just west of the Fort Stanwix Line which divided white settlers from Native Americans during colonial times. With the advent of the new United States, treaties for the land were signed with the Native Americans in 1785 and 1788. On February 25, 1789, Surveyor-General Simeon Dewitt, had the land surveyed into twenty townships to make up the present Chenango County. Preston was designated towns No. 14 at the very center of the new county. Preston was formed from the town of Norwich on April 2, 1806 and the township of McDonough was taken from Preston on April 17, 1816 to bring Preston to its present size. The first settler, in 1787, was John Glover from Norwich, Conn. He built the first grist mill and had the first store as part of his house. Soon many other settlers from New England followed with names such as Lewis, Fairchild, Eccleston, Marsh, Brown, Turner and Rogers. Throughout its history, Preston has primarily been an agricultural community which at one time supported three creameries and a school system consisting of eight common schools, seventeen teachers, and 223 students. Today we still have our farms but most of our residents are employed by manufacturing in Norwich or the service occupations that manufacturing supports. In the future, it looks as though we will just become a great place to live with open spaces and good neighbors.



As of the census of 2000, there were 928 people, 344 households, and 244 families residing in the town. The population density was 26.6 mi. There were 426 housing units at an average density of 12.2 mi. The racial makeup of the town was 97.74% White, 0.86% African American, 0.22% Native American, 0.32% Asian, 0.32% from other races and 0.54% from two or more races. Hispanic or Latino of any race were 0.54% of the population.

There were 34 households out of which 34.0% had children under the age of 18 living with them 57.3% were married couples living together, 7.6% had a female householder with no husband present, and 29.1% were non-families, 22.4% of all households were made up of individual and 6.7% had someone living alone who was 65 years of age or older. The average household size was 2.59 and the average family size was 2.94.

In the town population was spread out with 25.3% under the age of 18, 7.2% from 18 to 24, 27.8% from 25 to 44, 26.2% from 45 to 64 and 13.5% who were 65 years of age or older. The median age was 39.4 years. For every 100 females there were 109.5 males.

The median income for a household in the town was \$32,431, and the median income for a family was \$37,917. Males had a median income of \$26,985 versus \$19,200, for females. The per capita income for the town was \$14,760. About 5.6% of families and 11.5% of the population were below the poverty line, including 9.1% of those under 18 and 9.6% of those ages 65 or over.

The governing body consists of elected officials of a Supervisor, Four Councilman, Highway Superintendent and Town Clerk/Tax Collector. This governing body will assume responsibility for adoption and implementation of this plan.

9.26.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.26-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.26-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.26-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										



Type of Development	2016	2017	2018	2019	2020
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years					
None identified at this time					

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.26.4 Capability Assessment

The Town of Preston performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.26.4). The Town of Preston identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Preston and where hazard mitigation has been integrated.

Table 9.26-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	New York State Realty Subdivision Laws: Article 11, Title II Public Health Law	State	Local Planning Board	Yes	No	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	Yes	Title 6, Ch. X,17-7,8,70	Local	NYSDEC permits required for any major construction projects	Yes	No	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	No	-	Local	-	No	-	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	No	-	Local	-	No	-	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	-	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Flood Damage Prevention Law	Yes	Adopted 3/1987, Amended 8/19/2010	Local, State, Federal	Administered by County Code Official under and MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
<p>Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> Local Law No. 1 of the year 2010, enacted by the Town Board of the Town of Preston. The Town Board of the Town of Preston finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Preston and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program. The areas of special flood hazard for the Town of Preston, Community Number 361306, are identified and defined on the applicable documents prepared by the Federal Emergency Management Agency as certain Flood Insurance Rate Map Panel Numbers whose effective date is, November 26, 2010. The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4) Regulation	No	EPA Phase II Stormwater Rule	Federal	-	Yes	-	-
<p>Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.</p>							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes	N/A	N/A
<p>Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.</p>							
Climate Adaptation	No	NYS Executive Law, Article 75	Local	-	Yes	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	Local	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	Local	-	No		
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	-	-	-	-	-	-
Comment:							
<ul style="list-style-type: none"> Sanitary Code. 1988 Junk Storage Law. 2004 Special Purpose Ordinance 							
Planning Documents							
Comprehensive Plan	No	-	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	Yes	General Municipal Law Section 99-g.	Local	Building Reserve Fund	No	No	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	-	Local	NYSDEC permit and Federal Agencies	No	No	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	-	Local	NYSDEC Stormwater Plans	No	No	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Chenango County Office of emergency Management	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Not Indicated	Local	Chenango County Office of Emergency Management	Yes	No	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations."							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	December 2005	Local	Chenango County Office of Emergency Management	No	No	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

Table 9.26-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes; Chenango County Code Enforcement
Permits are tracked by hazard area. For example, floodplain development permits.	Yes, Chenango County Code Enforcement
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Preston.

Table 9.26-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Local Planning Board
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Chenango County Office of Emergency Management, Chenango County Sheriff's Office - Hyper-Reach/Notify Chenango



Resources	Available? (Yes or No)	Department/ Agency/Position
Maintenance programs to reduce risk	Yes	Equipment Reserves
Mutual aid agreements	Yes	County-wide Mutual Aid Agreements
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for Highway, Drainage Support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if Necessary
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	MOU with Chenango County FPA
Surveyor(s)	Yes	County Highway Department
Emergency Manager	Yes	Chenango County Emergency Management Office In Conjunction with Preston Fire Department
Grant writer(s)	Yes	County Planning & Development: Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Preston.

Table 9.26-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes, available to residents in past
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	N/A
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Preston.



Table 9.26-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Yes; Chenango County Office of Emergency Management; Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Preston.

Table 9.26-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable
NP Not participating
- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

**Table 9.26-9. Adaptive Capacity**

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Drought	Medium
Disease Outbreak	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Preston.

Table 9.26-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Preston	2	1	\$75,000	0	-	1

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Preston has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.



Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Preston has completed Community Assistance Visits (CAV), with the most recent visit completed in 2020.

Regulatory

The Town of Preston's Flood Damage Prevention Ordinance (FDPO) was last updated on August 19, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Infrastructure Protection:** Replace bridge on Turner St. The sides of the bridge wash out and the bridge needs widening.
- **Infrastructure Protection:** Replace bridge on South Griffin Road. The sides of the bridge wash out and bridge needs widening.
- **Infrastructure Protection:** Replace big culverts on Lewis Rd., Bliven-Sherman Rd., McEneny Rd. & Barnes Rd. to increase flow capacity.
- **Infrastructure Protection:** Improved ditching town-wide that will increase flow and upsize culverts.
- **Infrastructure Protection/Natural Resource Management:** Take down trees town-wide that are threatening lives, critical facilities and other structures.
- **Infrastructure Protection/Floodplain Management:** Control construction of beaver dams by monitoring problem areas & cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

The Town does not have any identified evacuation routes and relies on Chenango County Emergency Management to identify routes based on the event, needs of the Town, and current conditions.

Sheltering

There are no permanent shelters within the Town, but the Fire house and Preston Manor could be used to house residents during an emergency. The Fire House does not currently have backup power, but see Mitigation Action # 2021-T. Preston-001 for more details.



Temporary Housing

The Town of Preston has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town of Preston will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Town of Preston did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.26.5 Hazard Event History Specific to the Town of Preston

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Preston's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.26-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.26-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
February 1, 2015	Heavy Snow	No	A winter storm tracked from the central Plains on Sunday February 1st to the upper Ohio Valley and western Pennsylvania by Monday morning the 2nd. The storm then moved east off the New Jersey coast and out to sea by Monday evening. This storm spread snow to central New York during the evening hours of the 1st. The snow lasted through the overnight and tapered to snow showers by Monday afternoon. The winter storm brought a general 6 to 12 inches of snow to central New York with locally higher amounts.	Snowfall of 8 to 12 inches occurred with this winter storm. The highest snowfall was recorded in Mount Upton of 12.0 inches.
February 12, 2017	Heavy Snow	No	A winter storm tracked from the Ohio Valley across Pennsylvania to off the southern New England coast from the early morning hours of the 12th to the 13th. The storm brought heavy snow to portions of central and north central New York on the 12th with lake effect snow in its wake until the afternoon of the 13th.	Snowfall accumulations ranged from 7 to 9 inches.
February 7, 2018	Heavy Snow	No	Low pressure tracked from the Tennessee Valley early on the 7th to the New Jersey coast by the late afternoon of the 7th to off the New England coast by	Snowfall totals ranged from 6 to 9 inches throughout Chenango County.



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
			the late evening. This low brought a heavy snow to a large part of central New York on the 7th. Snowfall totals ranged from 5 to 12 inches over many locations in central New York.	
February 25, 2019	High Wind	No	A very strong low pressure system tracked from the Great Lakes into Canada the 24th into the 25th. As this system moved into Canada, a tight pressure gradient developed between this strong low pressure and high pressure located to the southwest. This resulted in a period of very strong winds across portions of Central New York and Northeast Pennsylvania during the morning of the 25th through the early afternoon.	Wind speeds reached over 50 knots, and an estimated \$15,000 in property damages were caused as a result of this storm throughout the area.

Notes:

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

9.26.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Preston's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those



that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.26-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None identified at this time				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Preston. The Town of Preston has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Preston indicated the following:

- Agreement with calculated rankings – no changes made

Table 9.26-13. Hazard Ranking

Drought	Disease Outbreak	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Fly Meadow Creek- creates problems for private residents.
- Turner Creek- reoccurring culvert, roadway, bridge and residential damage.
- Impact of Emerald Ash Borer on Local Ash Trees around electric infrastructure and roads
- Hoben Road routinely washes out whenever there is heavy rains, just about every year the road needs repairs.



Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- County Road 18
- Fix all the potholes and increase safety measures on Route 12

9.26.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.26-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
TPR-1	Issues created by Fly Meadow Creek for private residents.	Flood, Severe Storm		Issues created by Fly Meadow Creek for private residents.	Ongoing Capability	Level of Protection	-	The County continues to assess roads that are in need of repair and will seek funding to replace as necessary.
						Damages Avoided; Evidence of Success	-	
TPR-2	Turner Creek failure causing culvert, roadway, bridge and residential damage.	Flood, Severe Storm	Town Highway Dept.	Turner Creek failure causing culvert, roadway, bridge and residential damage.	Ongoing	Cost	-	See Mitigation Action # 2021-T. Preston-002.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPR-3 (Former TPR-1)	Replace bridge on Turner Street. The sides of the bridge wash out and the bridge needs widening.	Flooding, Storm water	Town Highway Dept., NYSDEC, Chenango Co Soil/Water Fish & Wildlife	Replace bridge on Turner Street. The sides of the bridge wash out and the bridge needs widening.	Ongoing	Cost	-	See Mitigation Action # 2021-T. Preston-002.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPR-4 (Former TPR-2)	Replace bridge on South Griffin Road. The sides of the bridge wash out and bridge needs widening.	Flooding, Storm water	Town Highway Dept., NYSDEC, Chenango Co Soil & Water Fish & Wildlife	Replace bridge on South Griffin Road. The sides of the bridge wash out and bridge needs widening.	Ongoing Capability	Cost	-	The County continues to assess roads that are in need of repair and will seek funding to replace as necessary.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPR-5 (Former TPR-3)	Replace big culverts on Lewis Rd., Bliven-Sherman	Flood, Severe Storm, Winter Storm	Town Highway Dept., Chenango	Replace big culverts on Lewis Rd., Bliven-Sherman Rd., McEneny Rd. & Barnes Rd. to increase flow capacity.	Ongoing	Cost	-	See Mitigation Action # 2021-T. Preston-003.
						Level of Protection	-	
						Damages Avoided;	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Rd., McEneny Rd. & Barnes Rd. to increase flow capacity.	(heavy snow run-off)	County Soil/Water, NYSDEC			Evidence of Success		
TPR-6 (Former TPR-4)	Improved ditching town-wide that will increase flow and upsize culverts.	Flood, Severe Storm. Winter Storm (heavy snow run-off)	Town Highway Dept., Chenango County Soil/Water, NYSDEC	Improved ditching town-wide that will increase flow and upsize culverts.	Ongoing Capability	Cost	-	This is part of the day-to-day operations of the Town.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPR-7 (Former TPR-5)	Hazardous Tree Management	Flood, Severe Storm, Severe	Preston Town Council, FEMA	Take down tree's town-wide that are threatening lives, critical facilities and other structures.	Ongoing Capability	Cost	-	This is part of the day-to-day operations of the Town.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPR-8 (Former TPR-6)	Beaver Dam Monitoring and Control	Flooding	NYSDEC, Town of Preston DPW	Control construction of beaver dams by monitoring problem areas & cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions.	Ongoing Capability	Cost	-	This is part of the day-to-day operations of the Town.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TPR-9 (Former TPR-7, -8)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification. Public education and awareness program for floodplain residents. Updates to NFIP floodplain mapping. Promotion of "Firewise" programs in the County.							



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	This is part of the day-to-day operations of the Town.
Level of Protection						-		
Damages Avoided; Evidence of Success						-		



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Preston has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- The Town has indicated that they have applied for FEMA mitigation funding for projects to reduce flooding and wash-outs on Hoben Road in previous years, but has routinely been denied.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Preston worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.26-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Preston would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.26-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.26-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Preston-001	Firehouse Generator	1, 2, 3, 4, 6, 7	All Hazards	Problem: The Town of Preston Fire Department does not have backup power. Solution: The Town Fire Department will seek to purchase an automatic emergency generator for the building. The generator will be placed in an elevated location, away from hazard risk and automatically turn on in case of power loss. This will ensure continual operations and safety during hazard events.	Yes	No	Short, 6 months	Town of Preston Fire Department	\$20,000	Ensures continual operation of emergency services and protects life and property	FEMA Assistance to Firefighters Grant Program, Municipal Budget	High	LPR	ES
2021-T. Preston-002	Turner Street	2, 3, 4, 6	Flooding, Severe Storm	Problem: There have been several washouts of this road and scouring along the sides of the current box culvert. Solution: The Town Highway Department will replace and install a larger concrete box culvert/bridge with prefabricated wing walls. This is a replacement, making it wider, and the Town will also repave the road above. Estimated culvert size is 8' x 12'.	No	No	Short, 6 months – 1 year	Town of Preston Highway Department	\$150,000	Ensures operation of road and reduces flood and washout risk	Bridge NY, FEMA HMA or Municipal Budget	High	SIP	SP
2021-T. Preston-003	Bliven-Sherman Road near Bowman Lake	2, 3, 4, 6	Flooding, Severe Storm	Problem: There is a beaver problem upstream from this location which consistently causes issues with this road. It has flooded out multiple times. Solution: The Town will upsize the two existing culverts. Proposed sizes will be dual 6' in diameter pipes installed to mitigate this issue when the beaver dam fails. The town will also contact the NYSDEC about remediating the beaver issue, however it is on NYS state-owned land and may be an issue. The town will follow the NYSDEC recommendation.	No	No	Short	Town of Preston Highway Department	\$70,000	High, reduces flood washout events and beaver dam concerns	NYSDEC, FEMA HMA, Municipal Budget	High	SIP, NSP	SP, NR
2021-T. Preston-004	Stafford Road	2, 3, 4, 6	Flooding, Severe Storm	Problem: The current box culvert is compromised. There has been substantial scouring from floodwaters.	No	No	Short, 1 year	Town of Preston	\$300,000	High, reduces flooding,	Bridge NY or Municipal Budget	High	SIP	SP



Table 9.26-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
	near Mill Brook			Solution: The Town of Preston Highway Department will install a larger concrete box culvert/bridge with replacement of the road above. The Town has tried to remediate this issue in the past but due to scouring from flood events, it continues to be an issue.				Highway Department		more permanent solution than been taken in past				

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- **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 manmade structures to reduce the impact of hazards.
- **Natural Systems Protection (NSP)** – These are actions that minimize damage and losses, and also 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



CRS Category:

- *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 also 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 9.26-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Preston-001	Firehouse Generator	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2021-T. Preston-002	Turner Street	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2021-T. Preston-003	Bliven-Sherman Road near Bowman Lake	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2021-T. Preston-004	Stafford Road near Mill Brook	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.26.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.26-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak	001									001
Drought	001									001
Extreme Temperatures	001									001
Flood	001	002, 003, 004	003					003	002, 003, 004	001
Harmful Algal Bloom	001									001
Invasive Species	001									001
Natural Gas	001									001
Severe Storm	001	002, 003, 004	003					003	002, 003, 004	001
Severe Winter Storm	001									001
Wildfire	001									001

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.26.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Preston followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Supervisor's Office and the Highway Department. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

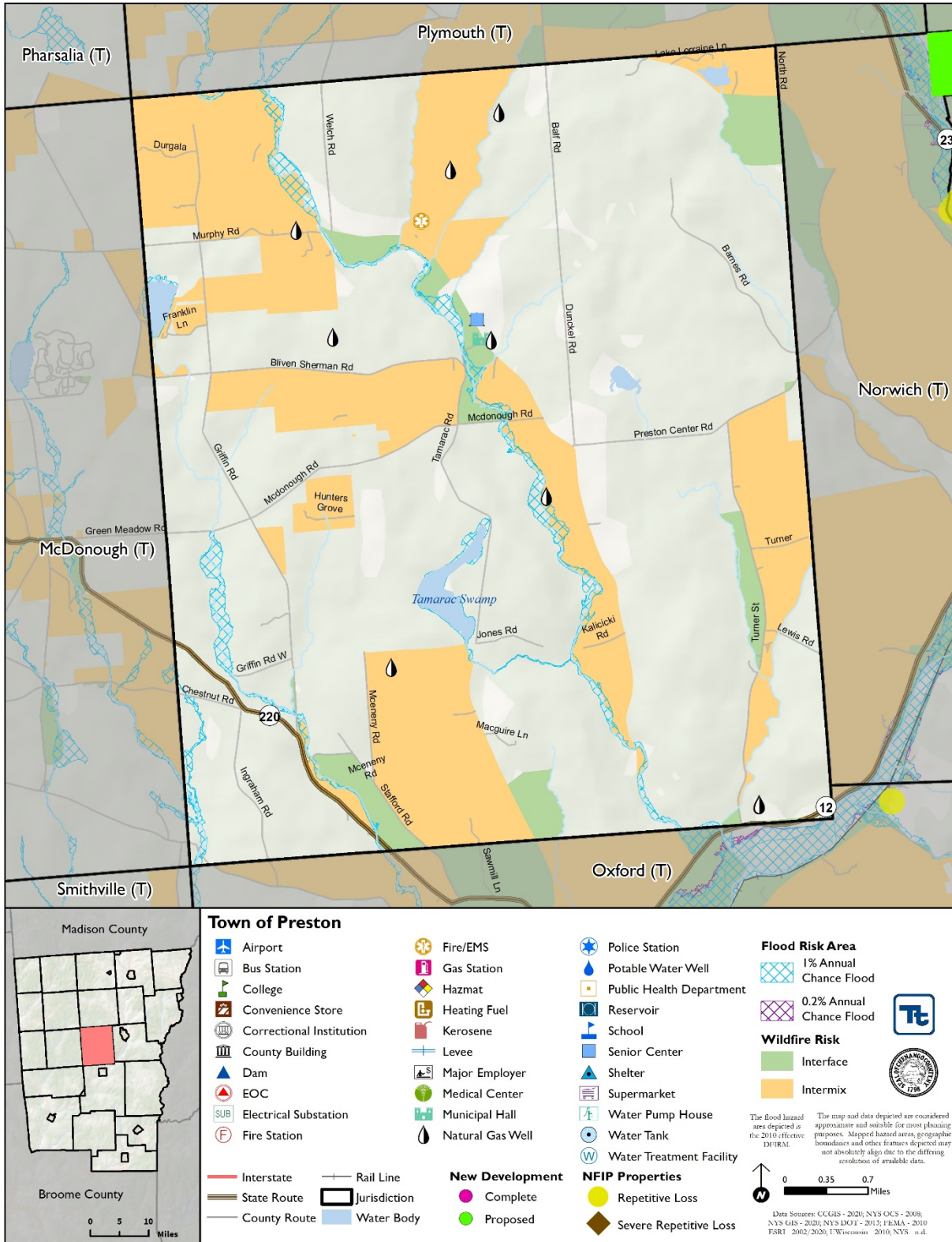
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.26.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Preston that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Preston has significant exposure. The map is illustrated below.



Figure 9.26-1. Town of Preston Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Firehouse Generator		
Project Number:	2021-T. Preston-001		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	The Town of Preston Fire Department does not have backup power.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Fire Department will seek to purchase an automatic emergency generator for the building. The generator will be placed in an elevated location, away from hazard risk and automatically turn on in case of power loss. This will ensure continual operations and safety during hazard events.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Ensures continual operation of emergency services and protects life and property
Useful Life:	50 years	Goals Met:	1, 2, 3, 4, 6, 7
Estimated Cost:	\$20,000	Mitigation Action Type:	LPR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	FEMA Assistance to Firefighters Grant Program, Municipal Budget
Responsible Organization:	Town of Preston Fire Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Emergency Services
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Install solar panels at fire department	\$500,000	Weather dependent, does not ensure continual power, not cost effective for needs
	Install non-automatic generator	\$15,000	Not cost effective because an automatic generator is the only thing that will ensure continual operation during events
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Firehouse Generator	
Project Number:	2021-T. Preston-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures continual operation of emergency services
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	Fire Department/Highway Department can install
Political	1	Has political support
Legal	1	
Fiscal	1	
Environmental	1	No anticipated environmental concerns
Social	1	
Administrative	1	
Multi-Hazard	1	All Hazards
Timeline	1	
Agency Champion	1	Fire Department
Other Community Objectives	1	
Total	14	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Turner Street		
Project Number:	2021-T. Preston-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flooding, Severe Storm		
Description of the Problem:	There have been several washouts of this road and scouring along the sides of the current box culvert.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Highway Department will replace and install a larger concrete box culvert/bridge with prefabricated wing walls. This is a replacement, making it wider, and the Town will also repave the road above. Estimated culvert size is 8' x 12'.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100-year flood	Estimated Benefits (losses avoided):	Ensures operation of road and reduces flood and washout risk
Useful Life:	50 years	Goals Met:	2, 3, 4, 6
Estimated Cost:	\$150,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 1 year
Estimated Time Required for Project Implementation:	3 months	Potential Funding Sources:	Bridge NY, FEMA HMA, Municipal Budget
Responsible Organization:	Town of Preston Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate roadway	N/A	Unfeasible, will disrupt the natural systems near the creek
	Relocate roadway	N/A	There are too many businesses/homes in the area, unfeasible without displacing these properties, does not address flood concerns
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Turner Street	
Project Number:	2021-T. Preston-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	12	
Priority (High/Med/Low)	High	



9.27 Town of Sherburne

This section presents the jurisdictional annex for the Town of Sherburne. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Sherburne's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.27.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Sherburne's hazard mitigation plan primary and alternate points of contact.

Table 9.27-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Chase Winton, Highway Superintendent 8433 State Rt 12, Sherburne, NY 13460 607-674-9024 twnsherburnehwy@frontier.com	Charles Mastro, Supervisor 1 Canal St, PO BOX 860, Sherburne, NY, 13460 607-674-4481 shertown@frontier.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.27.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 1,809.

Chenango County, New York is located along the northern border of Chenango County – Coordinates 42°40'45" N, 75° 9'51" W. Town is located midway between Utica and Binghamton, New York. New York State Route 12, north-south highway, intersects New York State Route 12B north of Sherburne village and intersects New York State Route 80 within the village.

First Settlement occurred around 1792 near Sherburne village (Sherburne village located at the intersection of NY Route 12 and NY-80). The Town of Sherburne was created in 1795 from the Town of Paris (now Oneida County). The Town of Smyrna was formed from part of Sherburne in 1808, and the size of Sherburne was increased by annexing part of the Town of New Berlin in 1852.

A Supervisor and a 4-member Town Board govern the Town of Sherburne. This governing body will assume responsibility for adoption and implementation of this plan.

9.27.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.27-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.27-1 at the end of this



annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.27-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.27.4 Capability Assessment

The Town of Sherburne performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.27.4). The Town of Sherburne identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.



Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Sherburne and where hazard mitigation has been integrated.

Table 9.27-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	-	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan" ¹¹ or "in accordance with a comprehensive plan." ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 1996	Local	Local Planning Board	No	No	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	Yes	Subdivision Regulations	Local	NYSDEC permits required for any major construction projects	Yes	No	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	Yes	Not Indicated	Local	Local Planning Board	No	No	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	Adopted 1993, last amended 2017	Local	Local Planning Board	No	Yes	N/A
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc. <ul style="list-style-type: none"> Local Law No. 2 of the year 2017, Site Plan Review, enacted by the Town Board of the Town of Sherburne. Through site plan review, it is the intent of this local law to promote, the health, safety and general welfare of the town. A clean, wholesome, attractive environment is declared to be of importance to the health and safety of the inhabitants of the town. It is further the intent of this local law to ensure the optimum overall conservation, protection, preservation, development and use of the natural and man related resources of the town, by regulating land use activity within the town through review and approval of site plans. The Planning Board's review of the site plan shall include, as appropriate, but not limited to, the following general considerations: Adequacy of stormwater and drainage facilities; Adequacy of water supply and sewage disposal facilities; Adequacy, type and arrangement of trees, shrubs and other landscaping constituting a visual and/or noise buffer between the applicant's and adjoining lands, including the maximum retention of existing vegetation; and special attention to the adequacy and impact of structures, roadways and landscaping in areas with susceptibility to ponding, flooding and/or erosion.. All construction on any shoreline lot shall be carried out in such manner as to minimize interference with the natural course of such waterway, to avoid erosion of the shoreline, to minimize increased runoff of ground and surface water into the waterway, to remove only that vegetation which is necessary to the accomplishment of the project and to generally maintain the existing aesthetic and ecological character of the shoreline. 							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	Chenango County Planning	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Adopted 9/1983, Amended 10/9/2013	Local, State, Federal	Administered by County Code Official under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Local Law No. 1 of the year 2013, A local law Flood Damage Prevention as Authorized by the New York State Constitution, Article IX Section 2, and Environmental Conservation Law, Article 36, enacted by the Town Board of the Town of Sherburne. The Town Board of the Town of Sherburne finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Sherburne and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> (1)regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program The areas of special flood hazard for the Town of Sherburne, Community Number, 361307 are identified and defined on the applicable documents prepared by the Federal Emergency Management Agency as certain Flood Insurance Rate Map Panel Numbers whose effective date is, November 26, 2010. 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<ul style="list-style-type: none"> The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	-	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Sherburne Fire Dist. Chenango County EMS	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	-	-	-	Yes	No	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	-	-	-	-	-	-
Comment: <ul style="list-style-type: none"> Special Purpose Ordinance. Within Subdivision and Site Plan Junk and Regulations – Adopted 1997 							
Planning Documents							
Comprehensive Plan	Yes	Adopted 2004; Update in Progress 2021	Local	Town Planning Department	No	No	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level Adopted 2004							
Capital Improvement Plan	Yes	General Municipal	Local	Town Board	No	No	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
		Law Section 99-g.					
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	-	Local	NYSDEC permit and Federal Agencies	No	No	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local	NYSDEC permits required for any major construction project	No	Yes	See above
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	Within comprehensive plan	Local	-	No	Yes	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	Yes	For lands owned by State	Local	-	No	-	-
Comment:							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	Yes	NYCRR Part 390 Agricultural and Farmland Protection -	Local	Town Board	Yes	No	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other:	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Sherburne Fire Dist. Chenango County EMS	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Not Indicated	Local	Local OEM	Yes	No	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations."							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	-	Local	Chenango County EMS	No		
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

**Table 9.27-4. Development and Permitting Capability**

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, County Building Code Enforcement
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Sherburne.

Table 9.27-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	-
Mitigation Planning Committee	Yes	Highway Superintendent and Town Supervisor
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Village has Economic Development Commission that works with Town
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	Highway Department responsible
Mutual aid agreements	Yes	Village of Sherburne, Chenango County
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning and Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for Highway, Drainage Support
Planners or engineers with an understanding of natural hazards	Yes	County Planning and Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	Yes	Highway Superintendent, County Planning Department
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Chenango County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil & Water
NFIP Floodplain Administrator (FPA)	Yes	MOU with County to utilize NFIP Floodplain Administrator's services
Surveyor(s)	Yes	County Highway Dept. if available manpower
Emergency Manager	Yes	Chenango Co EMS and Sherburne Fire Dept.
Grant writer(s)	Yes	County Planning and Development/Ext. Service
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Sherburne.



Table 9.27-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes, available to residents in past
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No. Some town residents receive public water service. Fee paid to Village.
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Sherburne.

Table 9.27-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	County if not, Clerk
Personnel skilled or trained in website development?	Yes
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes, for emergency situations
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Local Newspaper
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Schools located within the Village of Sherburne
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Sherburne.

Table 9.27-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A



Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable

NP Not participating

- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.27-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Sherburne.



Table 9.27-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Sherburne	17	18	\$183,084	7	-	7

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Sherburne has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Sherburne has completed Community Assistance Visits (CAV), with the most recent visit completed in 2015.

Regulatory

The Town of Sherburne Flood Damage Prevention Ordinance (FDPO) was last updated on October 9, 2013. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Infrastructure Protection/Floodplain Management:** Enhance storm water management by replacing existing culverts with larger size to increase capacity and flow, especially in areas with high volumes of water.
- **Floodplain Management:** Consider non-structural flood hazard mitigation alternatives for at risk properties within floodplain, especially along the Williams Road, where there is a reoccurring problem. The success of this project would be dependent on funding and property owner participation.
- **Infrastructure Protection/Floodplain Management:** Retrofit flood-prone roads that are critical to infrastructure. The Williams Rd and Blanding Rd will require increased culvert size/capacity and raising low areas to divert water flow to the roadside ditches.



Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

SR-12 North/South; SR-12B North; SR-80 East/West have been identified as evacuation routes within the Town.

Sheltering

The Sherburne Earlville School is a Red Cross Designated Shelter, and the fire house can also be used as a sheltering location if additional capacity is needed. Both have backup power.

Temporary Housing

Yes, there is municipal land available to house temporary units with access to sewage/power hookups.

Permanent Housing

While the Town of Sherburne did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations.

9.27.5 Hazard Event History Specific to the Town of Sherburne

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Sherburne's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.27-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.27-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 13-15, 2018	Flash Flooding	Yes	Heavy rainfall resulted in flash flooding and washed out roads	Culverts needed to be rebuilt, large embankment failure on West Hill Rd.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.27.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Sherburne's risk assessment results and data used to determine the hazard ranking.



A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.27-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Potable Water Well	Potable Water Facility	Yes	Yes	2021-T. Sherburne-001
Potable Water Well	Potable Water Facility	Yes	Yes	2021-T. Sherburne-001
Potable Water Well	Potable Water Facility	Yes	Yes	2021-T. Sherburne-001
Potable Water Well	Potable Water Facility	Yes	Yes	2021-T. Sherburne-001
Potable Water Well	Potable Water Facility	Yes	Yes	2021-T. Sherburne-001

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.



As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Sherburne. The Town of Sherburne has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Sherburne indicated the following:

- Agreement with calculated rankings
- Flood and heavy rain storms are high risk for the Town

Table 9.27-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	High	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

**The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality*

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Numerous roads and culverts throughout the town damaged by increased flooding in the area.
- Lack of clean waterways due to debris flowing downstream and reports of obstructions in waterways.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Most of downtown Sherburne is prone to flooding from the Chenango River. There are numerous areas throughout the county in need of culvert replacement, bridge repairs, tree removal due to damage from storms, insects, etc.
- North Main St., Sherburne- occasional flooding.
- Downtown Sherburne floods easily.
- Hazard Waste Day in Chenango County is a wonderful service but needs to happen more than one day a year. There are many household hazard wastes in most homes!

9.27.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.27-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Low	
TSH-1	Adopt restriction of no building permitted in a designated floodplain.	Flood	Town of Sherburne Board	Adopt restriction of no building permitted in a designated floodplain.	Complete	Level of Protection		Complete, discontinue.
						Damages Avoided; Evidence of Success	Avoid new RL and SRL properties; property protection	
TSH-2 (Former TSH-1)	Storm Water Upgrades	Flood, Severe Storm, Severe Winter Storm (Heavy Snow Run-Off)	Town Hwy Dept, Chenango Co. Soil/Water, DEC	Enhance storm water management by replacing existing culverts with larger size to increase capacity and flow, especially in areas with high volumes of water.	At least 1 has been replaced; In progress	Cost	-	The Town continues to replace culverts as needed
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TSH-3 (Former TSH-2)	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain	Flood, Severe Storm	Town of Sherburne Board, FEMA-SEMO	Promote and support non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as Repetitive Loss (RL – 2 currently) and Severe Repetitive Loss (SRL – none currently), such as acquisition/relocation or elevation depending on feasibility. The parameters for this initiative would be: funding, benefits versus cost and willing participation of property owners. Specifically identified	Ongoing Capability	Cost	-	The Town continues to support non-structural flood hazard mitigation for residents living within the SFHA.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				are properties on Williams Road and State Highway 12.				
TSH-4 (Former TSH-3)	Retrofit flood-prone roads that are critical to infrastructure	Severe Storms	Town Hwy Dept., County Hwy. Dept.	Williams Road and Blanding Road will require increased culvert size/capacity and raising low areas to divert water flow to the roadside ditches.	No Progress	Cost	-	Yes, include in 2021 HMP as 2021-T. Sherburne-002
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TSH-5 (Former TSH-4, -5)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	The Town continues to support County, State, and Federally-led programs and hazard mitigation planning initiatives.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Sherburne has not identified any mitigation projects or initiatives apart from those included in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Sherburne worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.27-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Sherburne would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.27-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.27-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Sherburne-001	Potable Water Wells Relocation	1, 2, 3, 5	Flood	Problem: Five Potable Water Wells are located within the 1% SFHA.	Yes ⬇	No	1 year	Town of Sherburne	High	High	FEMA BRIC, HMA	High	SIP	SP, ES
				Solution: The Town of Sherburne will identify locations to relocate the water wells outside of the SFHA to ensure that these critical facilities are not impacted by future flooding events.										
2021-T. Sherburne-002	Culvert Replacements	1, 2, 4, 6	Flood, Severe Storm, Severe Winter Storm	Problem: Culverts on Williams Road and Blanding Road are undersized and exacerbate flooding in the Town during hazard events.	No	No	Short	Town of Sherburne Highway Department	Medium, \$60K/culvert	High	Municipal Budget, NYSDOT	High	SIP	SP
				Solution: The Town will replace the culverts on Williams Road and Blanding Road to those of increased size/capacity to handle the water drainage and will also raise low areas to divert water flow to the roadside ditches.										
2021-T. Sherburne-003	Tree Maintenance	1, 3, 6, 7	Severe Storm, Severe Winter Storm, Flood	Problem: Many residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events, and debris impacting the flow of waterways within the Town.	No	No	Less than 6 months	Town of Sherburne	Low	High	Municipal Budget, FEMA HMA	High	LPR	PP
				Solution: The Town of Sherburne will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are nearby power lines as to reduce frequency of power outages.										



Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:

- 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 also 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 9.27-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Sherburne-001	Potable Water Wells Relocation	1	1	1	1	0	1	0	1	1	1	0	1	0	0	9	High
2021-T. Sherburne-002	Culvert Replacements	1	1	1	1	1	1	0	1	1	1	1	1	0	0	11	High
2021-T. Sherburne-003	Tree Maintenance	1	1	1	1	1	1	1	0	0	1	1	1	0	1	11	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.27.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.27-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood	003	001, 002				003			001, 002	001
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm	003	002				003			002	
Severe Winter Storm	003	002				003			002	
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.27.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Sherburne followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: Highway Department and Supervisor's Office. The Highway Superintendent represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

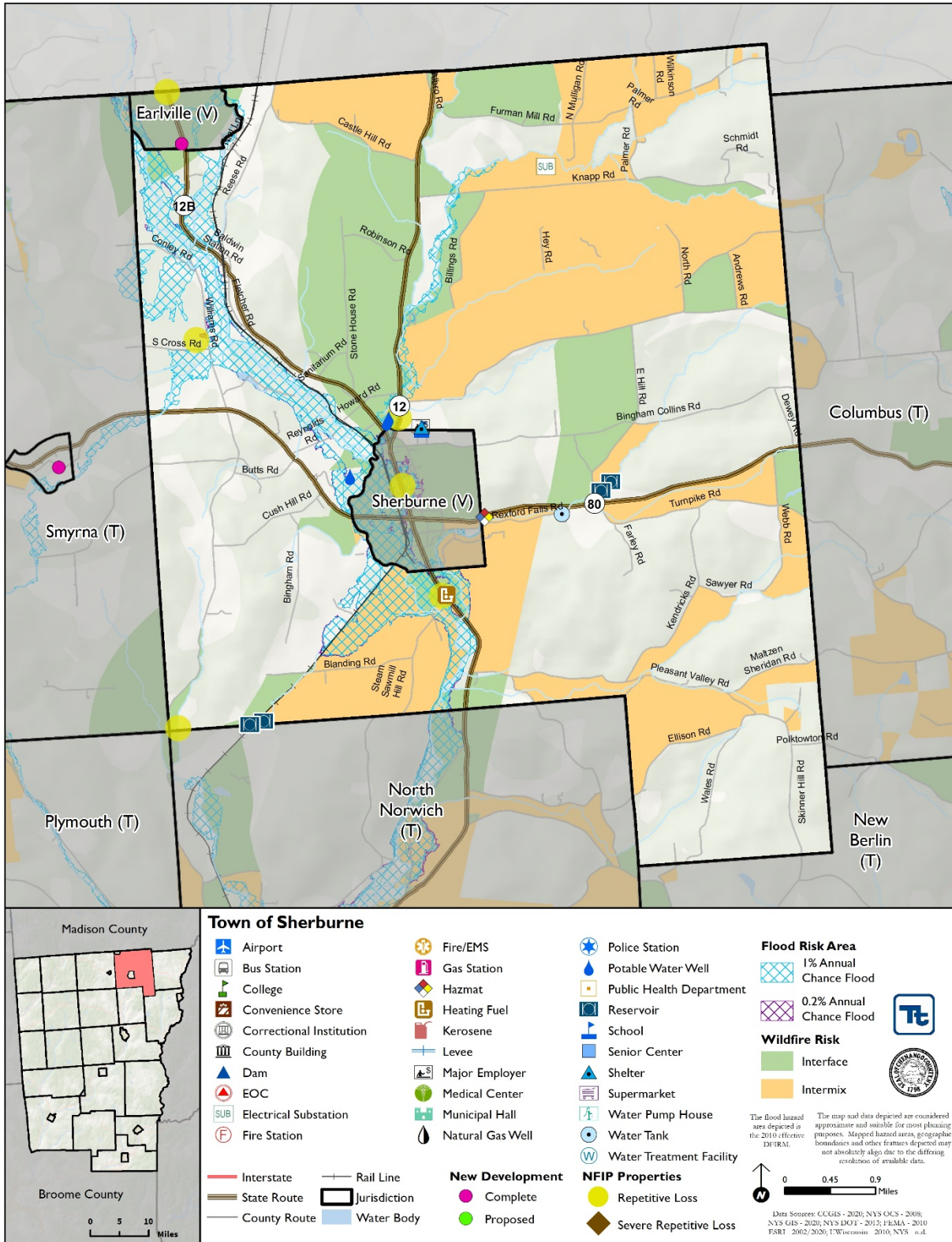
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.27.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Sherburne that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Sherburne has significant exposure. The map is illustrated below.



Figure 9.27-1. Town of Sherburne Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	2021-T. Sherburne-001		
Project Number:	Potable Water Well Relocation		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	Five Potable Water Wells are located within the 1% SFHA.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Sherburne will identify locations to relocate the water wells outside of the SFHA to ensure that these critical facilities are not impacted by future flooding events.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year floodplain	Estimated Benefits (losses avoided):	High, ensures safe drinking water
Useful Life:	99 years	Goals Met:	1, 2, 3, 5
Estimated Cost:	High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	1-3 years	Potential Funding Sources:	FEMA BRIC, HMA
Responsible Organization:	Town of Sherburne	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate water wells	Medium	Would not eliminate flood risk, not cost effective
	Decommission and build new water wells outside of floodplain	High	Not cost effective, current wells has not sustained structural damage and can be relocated
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. Sherburne-001	
Project Number:	Potable Water Well Relocation	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures safe drinking water
Property Protection	1	Eliminates flood risk to the facility
Cost-Effectiveness	1	Cost effective for eliminating risk
Technical	1	Town can support project and relocation
Political	0	
Legal	1	Town has jurisdiction
Fiscal	0	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	
Timeline	1	Can be completed within scope of HMP
Agency Champion	0	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	2021-T. Sherburne-002		
Project Number:	Culvert Replacements		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	Culverts on Williams Road and Blanding Road are undersized and exacerbate flooding in the Town during hazard events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will replace the culverts on Williams Road and Blanding Road to those of increased size/capacity to handle the water drainage and will also raise low areas to divert water flow to the roadside ditches.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	High, reduces flooding risk and cascading hazards (traffic accidents)
Useful Life:	60 years	Goals Met:	1, 2, 4, 6
Estimated Cost:	\$60,000/culvert	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	Municipal Budget, NYSDOT
Responsible Organization:	Town of Sherburne Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate Roadways	N/A	Not cost effective, would disrupt natural landscape of the Town
	Replace culverts with bridges	\$1 million	Roadway cannot support bridge, unfeasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-T. Sherburne-002	
Project Number:	Culvert Replacements	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces road closures and traffic accidents from flooded roadways
Property Protection	1	Reduces flooding risk
Cost-Effectiveness	1	
Technical	1	Highway Department can complete project
Political	1	
Legal	1	
Fiscal	0	Town will need to raise funds
Environmental	1	No environmental impacts anticipated
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm, Severe Winter Storm
Timeline	1	Can be completed within scope of HMP
Agency Champion	0	
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Tree Maintenance		
Project Number:	2021-T. Sherburne-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	Many residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events, and debris impacting the flow of waterways within the Town.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Sherburne will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are nearby power lines as to reduce frequency of power outages.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	N/A	Estimated Benefits (losses avoided):	High, cascading impacts from hazards
Useful Life:	30 years	Goals Met:	1, 3, 6, 7
Estimated Cost:	Low	Mitigation Action Type:	LRP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	Ongoing	Potential Funding Sources:	Municipal Budget, HMA
Responsible Organization:	Town of Sherburne	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Ground Power Lines	\$3 M+	Expensive, not cost-effective, will disrupt state and natural lands
	Remove all trees surrounding power lines	N/A	Not environmentally or ecologically sound, will not guarantee reduction in power outages
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Tree Maintenance	
Project Number:	2021-T. Sherburne-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces probability of power outages caused by debris during hazards
Property Protection	1	Protects property from falling trees
Cost-Effectiveness	1	
Technical	1	Town can support implementation
Political	1	
Legal	1	
Fiscal	1	
Environmental	0	Possible concerns with over-trimming, tree removal
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	Ongoing
Agency Champion	0	
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



9.28 Village of Sherburne

This section presents the jurisdictional annex for the Village of Sherburne. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Village participated in the planning process; an assessment of the Village of Sherburne's risk and vulnerability; the different capabilities utilized in the Village; and an action plan that will be implemented to achieve a more resilient community.

9.28.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Village of Sherburne's hazard mitigation plan primary and alternate points of contact.

Table 9.28-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Travis DuBois, Superintendent of Electric 15 West State St. Sherburne, NY 13460 607-316-8803 Travis.DuBois@sherburne.org	William Acee, Mayor 15 West State St. Sherburne, NY 13460 607-316-4382 clerk.treasurer@sherburne.org
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.28.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Village was 1,367.

The Village of Sherburne (1.5 mi²±) is located at and around the intersection of NYS RT 12 and NYS RT 80, generally in the center of the Town of Sherburne, in northern Chenango County, New York State. Coordinates - 42°40'4"N, 75°29'51"W

The first settlement in the Town of Sherburne took place near the Village around 1792. The Village was incorporated in 1830.

The Village has an elected Mayor, Village Board of Trustees (4) Assessor and Justice. The governing body will assume responsibility for adoption and implementation of this plan. There are several appointed positions and committees, which are in part: Village clerk, Superintendent of Public Works, Electric Utility Superintendent, Police Chief and Planning Commission.

9.28.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.28-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.28-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

**Table 9.28-2. Recent and Expected Future Development**

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	-	0	-	0	-	0	-	0	-
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
Recent Major Development and Infrastructure from 2015 to Present										
None Identified										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None Identified										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.28.4 Capability Assessment

The Village of Sherburne performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.28.4). The Village of Sherburne identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Sherburne and where hazard mitigation has been integrated.



Table 9.28-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Local Code Department	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	0	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan" ¹¹ or "in accordance with a comprehensive plan." ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	No	-	Local	-	No	-	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management Regulations	Yes	Title 6, Ch. X, 17-7,8,70	Local	Village of Sherburne	Yes	Yes	N/A
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	Yes	Not Indicated	Local	Local Planning Board	No	No	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							



SECTION 9.28: Village of Sherburne

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a	Local	Local Planning Board	No	No	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	-	Yes	N/A	N/A
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention Law	Yes	Adopted 1987. Last amended 8/24/2010	Local, State, Federal	Board of Trustees	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none">Local Law No. 1 of the year 2010. A local law for Flood Damage Prevention as authorized by the New York State Constitution, Article IX, Section 2, and Environmental Conservation Law, Article 36, enacted by the Board of Trustees of the Village of Sherburne. The Board of Trustees of the Village of Sherburne finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Village of Sherburne and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life.It is the purpose of this local law to:<ul style="list-style-type: none">(1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;(2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;(3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;(4) control filling, grading, dredging and other development which may increase erosion or flood damages;(5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and;(6) qualify and maintain for participation in the National Flood Insurance Program.The areas of special flood hazard for the Village of Sherburne, Community Number 360164, are identified and defined on the following documents prepared by the Federal Emergency Management Agency: Flood Insurance Rate Map Panel Numbers: 36017C0084E, 36017C0092E, 36017C0105E, 36093C0111E, whose effective date is, November 26, 2010.The Board of Trustees is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions.A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit.The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard;<ul style="list-style-type: none">(1) Proposals shall be consistent with the need to minimize flood damage;(2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and,(3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels.New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation.							
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	-	Yes	No	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							



SECTION 9.28: Village of Sherburne

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Sherburne Fire/EMS District / Chen. Co	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	Yes	Village of Sherburne Government Operations Climate Action Plan	Local	Village of Sherburne	Yes	Yes	N/A
Comment: The Village of Sherburne is a participating NYS Climate Smart Community as of June 2020, with goals to eliminate stationary combustion sources of greenhouse gasses from the Sewer and Water Department, as well as heating the Municipal Building and Fire House. Additional initiatives include increasing the hybrid/electric vehicles in the Village fleet and increase electric vehicle charging stations available to the public.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Other Applicable Codes, Ordinances, & Requirements	No	-	-	-	-	-	-
Comment:							
Planning Documents							
Comprehensive Plan	Yes	Adopted 2007	Local	Village Planning Board	No	Yes	N/A
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	Yes	General Municipal Law Section 99-g.	Local	Sherburne Area Local Development Corporation	No	Yes	N/A
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	-	Local	NYSDEC Permit and Federal Agencies	No	No	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	-	Local	NYSDEC Requirement	No	No	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							



SECTION 9.28: Village of Sherburne

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Sherburne Fire/EMS District / Chen. Co	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	No	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Have aspects of this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021 - Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	No	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations."							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes	-	Local	Sherburne Fire/EMS District / Chen. Co. EMS; State Mandated	No	No	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

Table 9.28-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Chenango County Code Enforcement
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Sherburne.

Table 9.28-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	-
Mitigation Planning Committee	No	-



Resources	Available? (Yes or No)	Department/ Agency/Position
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Mayor/Board; Sherburne Area Local Development Corporation
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	DPW
Mutual aid agreements	Yes	Yes, for Electric
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development; Private Consultants
Engineers or professionals trained in building or infrastructure construction practices	Yes	County DPW Engineer for highway, drainage support; Private Consultants
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development; Private Consultants
Staff with expertise or training in benefit/cost analysis	Yes	Private Consultant
Professionals trained in conducting damage assessments	Yes	County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Chenango County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil & Water Department; Private Consultant
NFIP Floodplain Administrator (FPA)	Yes	County
Surveyor(s)	Yes	Chenango County DPW Engineer; Private Contract
Emergency Manager	Yes	Chenango county Emergency Management Office in Conjunction with Sherburne Fire Department
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension; Private Consultant
Resilience Officer	No	-
Other		

Fiscal Capability

The table below summarizes financial resources available to the Village of Sherburne.

Table 9.28-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements 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	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	Yes



Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Sherburne.

Table 9.28-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	Yes, Links to HMP
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Yes – Hyper-Reach and Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Yes – Sherburne Earlville
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Village of Sherburne.

Table 9.28-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	Yes	None	Adopted resolution on 6/17/2020
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable
 NP Not participating
 - Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

**Table 9.28-9. Adaptive Capacity**

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Sherburne.

Table 9.28-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Village of Sherburne	26	11	\$332,636	6	-	11

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Village of Sherburne has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.



Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Village of Sherburne has completed Community Assistance Visits (CAV), with the most recent visit completed in 2015.

Regulatory

The Village of Sherburne Flood Damage Prevention Ordinance (FDPO) was last updated on August 24, 2010. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Floodplain Management/Infrastructure Protection:** Study, rehabilitate and repair two (2) Village-owned earthen dams (DEC #117A-0696 and 0700) on Mad Brook approximately 2 miles east of the Village, which were identified by the NYSDEC Dam Safety Bureau as deficient.
- **Floodplain Management/Infrastructure Protection:** Continue annual inspection of Chenango River within Village, and continue removal of snags and gravel bars.
- **Floodplain Management/Infrastructure Protection:** Continue to conduct an annual inspection of the Handsome Brook, within the Village, for gravel bars.
- **Floodplain Management/Infrastructure Protection:** Mad Brook maintenance: Continue to conduct annual inspection of Mad Brook within Village, removal of snags and gravel bars to reduce flood hazard.
- **Floodplain Management/Infrastructure Protection:** Potash Creek maintenance: clean channel south of NYS RT 80,
- **Floodplain Management:** Secure property easements to create an open swale that can be groomed and maintained between Classic Street and NYS Rte12.
- **Infrastructure Protection/Floodplain Management:** As of the time this worksheet is being written, the NYSDEC is in the process of increasing the hazard classification from low to moderate. The Mad Brook Bridge project is resulting in the reduction of the hazard class from medium back to low. The Spring 2020 report by Obrian & Cocre (?) is at DEC Dam Safety for review in concurrence. Hazard mitigation for the dams can be placed into three major areas: 1. Embankment Buttressing, 2. Spillway and Channel Restoration and 3. Low Level Outlet Replacement. Each one of these major items is on a separate worksheet.
- **Infrastructure Protection/Disaster Preparedness Planning:** Create a computer model of the Village in order to determine weaknesses in the storm water system.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.



Evacuation Routes

NY-12 and NY-80 have been identified as potential evacuation routes in the Vilalge, however depending on road conditions, residents should refer to the Chenango County Emergency Management website for up-to-date information.

Sheltering

Sherburne Earlville Elementary School and Sherburne Earlville Middle/High School have been identified by the Red Cross National Shelter Search (NSS) as potential sheltering locations.

Temporary Housing

Sherburne Earlville School has open fields/land that could be used to place mobile housing solutions for displaced residents.

Permanent Housing

While the Village of Sherburne did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Village can utilize this analysis to identify potential locations.

9.28.5 Hazard Event History Specific to the Village of Sherburne

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Village of Sherburne's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.28-11 provides details regarding municipal-specific loss and damages the Village experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.28-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
February 12, 2017	Heavy Snow	No	A Winter Storm brought heavy snow to portions of central New York with lake effect snow in its wake.	Snowfall accumulations ranged from 7 to 9 inches with the highest amount in Sherburne.
May 1, 2017	Thunderstorm Wind	No	A warm front created an unstable air mass across New York State and Pennsylvania, producing a line of thunderstorms. Winds reached speeds between 70 and 100 mph and numerous trees were knocked down, resulting in widespread power outages.	Trees and power lines were downed at the intersection of route 12 and 80 in Sherburne. This intersection also experienced flooding.
August 4, 2017	Thunderstorm Wind	No	A cold front moved across the area, developing into thunderstorms that produced damaging winds upwards of 50 mph.	Severe winds kicked over a tree which blocked a portion of Blanding Road in Sherburne.
November 1, 2019	Flood	No	Rainstorms and thunderstorms developed ahead of a low pressure system, brining 1 to 3 inches of rain	The Chenango River in Sherburne exceeded Moderate flood stage with a



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
			throughout the region, with localized amounts reaching 5 inches. Several periods of flash flooding occurred.	crest of 10.07 feet at 5:15 AM on November 1st. An estimated \$50,000 in property damages was recorded.

Notes:

EM *Emergency Declaration (FEMA)*

FEMA *Federal Emergency Management Agency*

DR *Major Disaster Declaration (FEMA)*

N/A *Not applicable*

9.28.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Village of Sherburne's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

**Table 9.28-12. Potential Flood Losses to Critical Facilities**

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Big M	Supermarket	Yes	Yes	2021-V. Sherburne-002
Dollar General	Convenience Store	No	Yes	-
Sherburne Police Department	Police Station	No	Yes	2021-V. Sherburne-001
Hamilton Products Inc	Hazmat	No	Yes	-
Village of Sherburne	Municipal Hall	No	Yes	2021-V. Sherburne-001
Grace Manor Apartments	Senior Center	No	Yes	-

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Village of Sherburne. The Village of Sherburne has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Village of Sherburne indicated the following:

- The Village does not have any wooded forests and very limited juxtaposition to forests (WUI) and decreased the risk ranking for wildfire to low.

Table 9.28-13. Hazard Ranking

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire*
Medium	Medium	Medium	High	Low	Medium	Low	High	Medium	Low

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Numerous roads and culverts throughout the Village damaged by increased flooding in the area. However, these are state facilities, and are not under the jurisdiction of the Village.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:



- Ditch located near 44 classic st in Sherburne NY was built long before the elementary school parking lot, the storage center, and the bus garage. All that water now runs downhill into that specific ditch and floods many houses nearby. It's also only been dredged out one time since it was built back in the early 1990s. The pipes are full of silt and you can't hardly see the drain grid under all the silt and grass. It's awful to live near. The pipes are too small to handle all the water and the water becomes stagnant during storms rather than going away like it used to.

9.28.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.28-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
VSH-1	Village Wide Stormwater System Weakness Modeling	Flood, Severe Storm	Village of Smyrna DPW with support from County	Create a computer model of the Village in order to determine weaknesses in the storm water system. A computer model based on UGIS maps and GPS coordinates of storm water structures is the best tool to help find deficiencies and prioritize storm water projects	No Progress	Cost	-	This is no longer a priority of the Village.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VSH-2 (Former VSH-1)	Mad Brook Dams Improvements – Embankment Buttrressing	Flood, Severe Storm, Earthquake, Dam Failure	Village of Sherburne, NYS DEC	Embankment buttressing including clearing and grubbing, embankment stabilization, rip-rap upstream slope, topsoil and seeding, engineering, permitting, inspection.	In progress	Cost	-	Grubbing/Clearing/Seeding and inspections are complete and in maintenance mode
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VSH-3 (Former VSH-1)	Mad Brook Dams Improvements – Spillway and Channel Restoration	Flood, Severe Storm, Dam Failure	Village of Sherburne, NYS DEC	Spillway and channel restoration including clearing and grubbing, channel rip-rap, bedding, reinforced concrete, engineering, permitting and inspection.	Complete	Cost	-	The Village recently replaced a culvert on Mad Brook in 2019 that allowed for reduction in flood risk, and the dam to be reclassified as a low level hazard risk (Class A).
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VSH-4 (Former VSH-1)	Mad Brook Dams Improvements – Low-Level Outlet Replacement	Flood, Severe Storm, Dam Failure	Village of Sherburne, NYS DEC	The NYSDEC decreased the hazard classification from moderate back to low in Spring 2020. Hazard mitigation for the dams can be placed	No progress yes, low level output is operational and tested	Cost	-	The Village recently replaced a culvert on Mad Brook in 2019 that allowed for reduction in flood risk, and the dam to be reclassified as a low level hazard risk (Class A).
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				into three major areas: 1. Embankment Buttressing, 2. Spillway and Channel Restoration and 3. Low Level Outlet Replacement. This worksheet covers Low Level Outlet Replacement – The most economical method includes slip-lining the existing with engineering, permitting, inspection				
VSH-5 (Former VSH-1)	Study, rehabilitate and repair two (2) Village-owned earthen dams (DEC #117A-0696 and 0700) on Mad Brook approximately 2 miles east of the Village, which were identified by the NYSDEC Dam Safety Bureau as deficient. A professional engineering consulting firm conducted a thorough investigation and a recommended remedial action plan was summarized in a report. This report is on file at the Village office. Possible breach in dam(s) and erosion control due to high watershed run-off especially during heavy precipitation/melting events. This is a project submitted under Sandy HMGP.							
	See above	Flood	NYSDEC Dam Safety Bureau	See above	Complete	Cost	-	The Village recently replaced a culvert on Mad Brook in 2019 that allowed for reduction in flood risk, and the dam to be reclassified as a low level hazard risk (Class A).
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VSH-6 (Former VSH-2)	Annual inspection of Chenango River	Flood, Severe Storm (Run-off, melt-off, flooding)	Village DPW; working with NYSDEC, CC SWCD, NYSDOT	Continue annual inspection of Chenango River within Village, and continue removal of snags and gravel bars.	Ongoing Capability	Cost	-	This project is ongoing work to be completed as needed by a collaboration between the Village and the NYSDEC.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
	VSH-7 (Former VSH-3)	Annual inspection of the Handsome Brook	Flood, Severe Storm (Run-off, melt-off, flooding)	Village DPW; working with NYSDEC, CC SWCD, NYSDOT	Continue to conduct an annual inspection of the Handsome Brook, within the Village, for gravel bars. Removal of this debris allows for a uniform stream flow	Ongoing Capability	Cost	-
Level of Protection							-	
Damages Avoided; Evidence of Success							-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				and maintains the original cross section for stream capacity reducing flood hazards.				
VSH-8 (Former VSH-4)	Mad Brook maintenance	Flood, Severe Storm (Run-off, melt-off, flooding)	Village DPW; working with NYSDEC, CC SWCD, NYSDOT	Continue to conduct annual inspection of Mad Brook within Village, removal of snags and gravel bars to reduce flood hazard.	Complete	Cost	-	-
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VSH-9 (Former VSH-5)	Potash Creek maintenance	Flood, Severe Storm (Run-off, melt-off, flooding)	Village DPW; working with Idjoining landowner, NYSDEC, CC SWCD, NYSDOT	Clean channel south of NYS RT 80	Complete	Cost	-	-
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VSH-10 (Former VSH-7)	Route 12 Stormwater Upgrades	Flood, Severe Storm (Run-off, melt-off, flooding)	Village of Sherburne, Chenango and NYS DOT	Secure property easements to create an open swale and/or retention ponds that can be groomed and maintained between Classic Street and NYS Rte12. The acquisition of the easements would restrict any construction in the area, allowing for the natural absorption, and retention of the run-off from the north and east of the Village	No Progress	Cost	-	The Village is unable to secure easements on private properties and no further action is being taken.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
VSH-11	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.							



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	<ul style="list-style-type: none">• Updates to NFIP floodplain mapping.• Promotion of “Firewise” programs in the County.• Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost		This is an ongoing capability of the Village.
						Level of Protection		
						Damages Avoided; Evidence of Success		



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Sherburne has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- In 2019, the arch pipe in Mad Brook on Chapel was removed. Stream banks were restored to full width, and a pedestrian suspension bridge was installed.
- The Village of Sherburne has its own electric grid and is currently undergoing a project to improve broadband access to residents within the Village.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Sherburne worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.28-15 summarizes the comprehensive-range of specific mitigation initiatives the Village of Sherburne would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.28-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.28-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-V. Sherburne-001	Municipal Office/Fire House Generator	1, 2, 3, 6, 7	All Hazards	<p>Problem: The Village Municipal Office and Fire House does not currently have access to backup power.</p> <p>Solution: The Superintendent of Eclectic for the Village will acquire a permanent generator with an automatic switch to ensure constant power supply to the building. Estimated size for the generator would be 100KW and cost will be determined at time of purchasing.</p>	Yes ●	No	Short, 1 year	Village of Sherburne Electric	Medium \$50,000	High, Ensures continuous operation of government and emergency operations	FEMA HMA, NYSDEC	High	LPR	ES, PP
2021-V. Sherburne-002	Critical Facility Outreach	1, 2, 3, 5	Flood	<p>Problem: The Big M supermarket, which is a critical facility for food supply within the Village, is located within the 1% SFHA. Other privately owned critical facilities are located within the 0.2% SFHA as well.</p> <p>Solution: The Village will conduct outreach to the owners of the facilities about their location within the floodplain, and if the owners choose to mitigate, the Village will provide support of grant applications and necessary engineering or flood study support.</p>	Yes ●	No	Short	Village of Sherburne	Low, Outreach support <\$5,000	High, Ensures function of critical facilities	Municipal Budget	Medium	LPR, EAP	PR, PP, PI
2021-V. Sherburne-003	Repetitive Loss Outreach	1, 2, 3, 5	Flood	<p>Problem: There are 6 RL properties within the Village, and 11 properties located within the floodplain.</p> <p>Solution: The Village will conduct outreach to property owners that have experienced flooding issues.</p>	No	No	Short	Village of Sherburne	Low, Outreach support <\$5,000	High, ensures property protection and personal preparedness	Municipal Budget	Medium	LPR, EAP	PR, PP, PI
2021-V. Sherburne-004	Substation Flood Hardening	1, 2, 3, 4, 6, 7	Flood, Severe Storm	<p>Problem: The North Substation outside breakers and control room are susceptible to flooding.</p> <p>Solution: The Village will raise 5 outdoor breakers and flood harden the control room to eliminate flooding risk.</p>	Yes ●	No	Short, Within next 2 years	Village of Sherburne Electric	Medium, \$75,000	High, Eliminates flood risk and loss of power to Village	FEMA BRIC, NYSDEC, NYSERDA	High	SIP	SP, PP



Table 9.28-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-V. Sherburne-005	Wastewater Treatment Plant Upgrades	1, 2, 3, 4, 6, 7	Flood, Severe Storm	<p>Problem: The Wastewater Treatment Plant is located within the floodplain and critical components are located in the basement of the facility. Flooding has been a repetitive issue at the facility.</p> <p>Solution: The Village of Sherburne is planning a renovation and upgrade to the Wastewater Treatment Plant. This includes removing controls and critical operating units from the basement. As of 2021, the project is currently under review by the NYSDEC.</p>	Yes 💧	No	Short, renovation and upgrades planned	Village of Sherburne Water	High	High	Municipal Budget, FEMA BRIC	High	SIP	SP, PP

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes 💧 Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NSP)* - These are actions that minimize damage and losses, and also 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

CRS Category:

- *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 also 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 9.28-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-V. Sherburne-001	Municipal Office/Fire House Generator	1	1	1	1	1	1	0	0	0	1	1	1	1	1	11	High
2021-V. Sherburne-002	Critical Facility Outreach	1	1	1	0	0	0	1	0	0	1	0	1	0	1	7	Medium
2021-V. Sherburne-003	Repetitive Loss Outreach	1	1	1	0	0	0	1	0	1	1	0	1	0	1	8	Medium
2021-V. Sherburne-004	Substation Flood Hardening	1	1	1	1	1	1	0	0	0	1	1	1	1	1	11	High
2021-V. Sherburne-005	Wastewater Treatment Plant Upgrades	1	1	1	1	1	1	0	0	0	1	1	1	1	1	11	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.28.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.28-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak	001					001				001
Drought	001					001				001
Extreme Temperatures	001					001				001
Flood	001, 002, 003	004, 005		002, 003	002, 003	001, 002, 003, 004, 005	002, 003		004, 005	001
Harmful Algal Bloom	001					001				001
Invasive Species	001					001				001
Natural Gas	001					001				001
Severe Storm	001	004, 005				001, 004, 005			004, 005	001
Severe Winter Storm	001					001				001
Wildfire	001					001				001

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.28.9 Staff and Local Stakeholder Involvement in Annex Development

The Village of Sherburne followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Village departments, including: Electric, DPW, and the Mayor's Office. The Superintendent of Electric represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

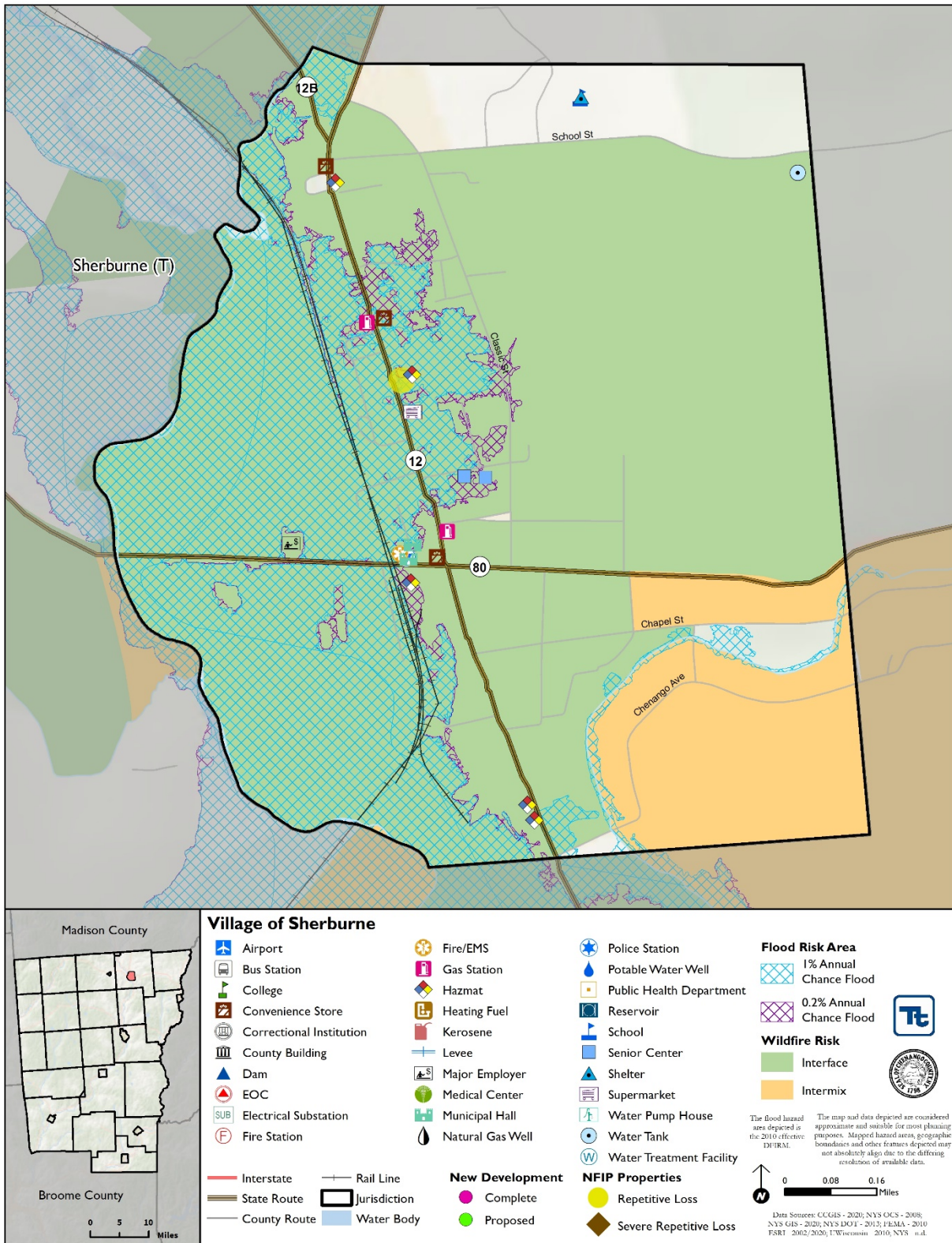
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.28.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Village of Sherburne that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Sherburne has significant exposure. The map is illustrated below.



Figure 9.28-1. Village of Sherburne Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	2021-V. Sherburne-001		
Project Number:	Municipal Office/Fire House Generator		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	The Village Municipal Office and Fire House does not currently have access to backup power.		
Action or Project Intended for Implementation			
Description of the Solution:	The Superintendent of Eclectic for the Village will acquire a permanent generator with an automatic switch to ensure constant power supply to the building. Estimated size for the generator would be 100KW and cost will be determined at time of purchasing.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/> X	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/> X	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Ensures continuous operation of government and emergency operations
Useful Life:	30 years	Goals Met:	1, 2, 3, 6, 7
Estimated Cost:	\$50,000	Mitigation Action Type:	LPR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 1 year
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA HMA, NYSDEC
Responsible Organization:	Village of Sherburne Electric	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Continuity of Government Operations
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Install Solar Panels at Municipal Hall	\$1M	Not cost effective, weather dependent
	Non-automatic, moveable generator	\$25,000	Cheaper but does not ensure permanent, constant power supply
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-V. Sherburne-001	
Project Number:	Municipal Office/Fire House Generator	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Sherburne Fire House is located within the Municipal Hall
Property Protection	1	
Cost-Effectiveness	1	Best option to ensure continuity of operations within the Municipal Hall
Technical	1	Sherburne Electric can support
Political	1	
Legal	1	Village has jurisdiction
Fiscal	0	May need fiscal support to purchase generator
Environmental	0	No known issues
Social	0	
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	1	
Agency Champion	1	Superintendent of Electric
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	2021-V. Sherburne-004		
Project Number:	Substation Flood Hardening		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	The North Substation outside breakers and control room are susceptible to flooding.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village will raise 5 outdoor breakers and flood harden the control room to eliminate flooding risk and ensure power supply to residents.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/> X	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input checked="" type="checkbox"/> X	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Eliminates flood risk and loss of power to Village
Useful Life:	99 years	Goals Met:	1, 2, 3, 4, 6, 7
Estimated Cost:	75,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within next 2 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA BRIC
Responsible Organization:	Village of Sherburne Electric	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Community Development
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Relocate substation	N/A	Unfeasible, no municipal land to relocate
	Replace substation with wind farm	N/A	Will not provide enough supply, not enough land
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	2021-V. Sherburne-004	
Project Number:	Substation Flood Hardening	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Ensures power supply
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	Sherburne Electric to support upgrades to facility
Political	1	
Legal	1	Village has jurisdiction over power grid
Fiscal	0	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Superintendent of Electric
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



9.29 Town of Smithville

This section presents the jurisdictional annex for the Town of Smithville. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Smithville's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.29.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Smithville's hazard mitigation plan primary and alternate points of contact.

Table 9.29-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Vince Witkowski, Road Supervisor 5285 NY-41, Smithville Flats, NY 13841 607-244-1573 townmithwydept@gmail.com	John Cammarata, Town Supervisor 5285 NY-41, Smithville Flats, NY 13841 607-373-0500 jcammaratatownsuper@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Code Enforcement Official 5 Court Street, Norwich, NY 13815 607-337-1795 SteveF@co.chenango.ny.us	

9.29.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 1,330.

The Town of Smithville is at the west border of Chenango County, southwest of the city of Norwich; the west town line is the boarder of Broome County & Cortland County.

The Town was first settled in 1797. Smithville was formed from part of the Town of Greene in 1808. The population of Smithville in 1865 was 1,634. The Town has a total area of 50.9 sq. miles. Smithville was incorporated in 1809.

The Town of Smithville is governed by a five member Town Council that includes the Town Supervisor. This body will be responsible for this resolution, implementation and update of the Hazard Mitigation Plan. The Town provides Public Safety, General Administrative Services, Highway and other Services to its residents.

9.29.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.29-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.29-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

**Table 9.29-2. Recent and Expected Future Development**

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	0	-	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	0	0	0	0	0	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
None identified at this time										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified at this time										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.29.4 Capability Assessment

The Town of Smithville performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.29.4). The Town of Smithville identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy. Appendix G provides the results of the planning/policy document review and the answers to integration survey questions.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Smithville and where hazard mitigation has been integrated.



Table 9.29-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Local Code Department	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	N/A	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan" ¹¹ or "in accordance with a comprehensive plan." ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	January 5, 1990	Local	Local Planning Board	No	Yes	N/A
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730). <ul style="list-style-type: none">Town of Smithville, Subdivision Regulations. For the purpose of providing for orderly future growth and development of land in the Town of Smithville, New York, and affording adequate facilities for housing, transportation, distribution, comfort, convenience, safety, public health, and general welfare of the populations, and the Town Planning Board of the Town of Smithville, acting under authority granted by the Town Board pursuant to the provisions of Article 16 of the Town Law of the State of New York. The "Town Board of Smithville Subdivision Regulations" have been adopted by the Planning Board and approved by the Town Board.The Planning Board shall review the location of the proposed subdivision for the presence of any adverse natural considerations limiting development on the site as indicated by the Natural Resource Composite Maps on file in the Town Offices. Of the site falls into areas on the soils map denoted as having "moderate", "severe", or "very severe" limitation; within flood hazard areas, or areas of unique hydrologic or natural habitat areas (including wetlands), the Planning Board may require the subdivider to consult with the appropriate technical review or assistance agencies.Pursuant to a resolution of the Town Board, the Town of Smithville Planning Board has been empowered to modify the minimum lot area, minimum width and minimum lot width requirements in accordance with the provisions of section 281 of the Town Law, in order to enable and encourage flexibility of design and development of land in such a manner as to promote the most appropriate use of land, to facilitate the adequate and economical provision of streets and utilities, and to preserve the natural and scenic qualities of open lands, and be used to avoid development in critical resource areas, and shall not approve a sketch plan which has failed to adequately address these critical resource concerns (soils, flood hazards, hydrologic and natural habitat resources).Land subject to serious or regular flooding shall not be subdivided for residential occupancy or for such other uses, as may increase danger to life or property or aggravate the flood hazard, but such land may be used for such uses, subject to any zoning regulations, or in such a way that the flood danger to this property and other upstream or downstream properties will not be increased and periodic or occasional inundation will not be a substantial threat to life or property. The provisions of this section shall apply to all land falling within the 100 year flood limit as shown on the map prepared by the Town of Smithville and the Department of Housing and Urban Development as periodically amended.Development of steep slope (over 12%) sites will be conditionally acceptable only if there is no prudent or feasible alternative site, and erosion and sedimentation control measures are incorporated in the design, construction, and operation of the development according to standards set by the U.S. Soil Conservation Service.							
Stormwater Management Regulations	Yes	Title 6, Ch. X, 17-7, 8, 70	Local	Not Indicated	Yes	No	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery Plan or Regulation	Yes	Updated Annually	Local	Not Indicated	No	No	-
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	N/A	N/A
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management Regulation	No	-	Local	-	No	-	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a Adopted 2015	Local	Local Planning Board	No	Yes	N/A
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc. <ul style="list-style-type: none"> Local Law No. 1, Site Plan Review Law, 2015. Through site plan review, it is the intent of this local law to promote, the health, safety and general welfare of the town. A clean, wholesome, attractive environment is declared to be of importance to the health and safety of the inhabitants of the town. It is further the intent of this local law to ensure the optimum overall conservation, protection, preservation, development and use of the natural and man-made resources of the town, by regulating land use activity within the-town through review and approval of site plans. The Planning Board is hereby authorized to review and approve or disapprove site plans for land uses within the town. Prior to undertaking any new land use activity except for a one- or two-family dwelling and other uses specifically accepted in section 2.1 of this local law, a site plan approval by the planning board is required. An application for site plan review shall include a Short or Full Environmental Assessment Form, whichever is deemed appropriate by the board. The Planning Board's review of the site plan shall include, as appropriate, but not limited to, the following general considerations: Adequacy of stormwater and drainage facilities; Adequacy of water supply and sewage disposal facilities; Adequacy, type and arrangement of trees, shrubs and other landscaping constituting a visual and/or noise buffer between the applicant's and adjoining lands, including the maximum retention of existing vegetation; and special attention to the adequacy and impact of structures, roadways and landscaping in areas with susceptibility to ponding, flooding and/or erosion. All construction on any shoreline lot shall be carried out in such manner as to minimize interference with the natural course of such waterway, to avoid erosion of the shoreline, to minimize increased runoff of ground and surface water into the waterway, to remove only that vegetation which is necessary to the accomplishment of the project, and to generally maintain the existing aesthetic and ecological character of the shoreline. No on-site sewage tile field or seepage pit shall be located within one hundred (100) feet of any shoreline and no septic or other holding tank shall be located within fifty (50) feet of any shoreline, as measured from the normal high water mark of the waterbody. 							
Environmental Protection	Yes	Title 6 NYCRR Part 617 – Environmental Quality	State	Local Planning Board for Site Plan and	Yes	Yes	N/A



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
		Review Act, 1981		Subdivision Applications			
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019 <ul style="list-style-type: none">Local Law No. 1, of the year 1981. Environmental Quality Review Act enacted by the Town Board of the Town of Smithville. A Local Law of the Town of Smithville pursuant to Article 8 of the New York Environmental Conservation Law providing for environmental quality review of actions which may have a significant effect on the environment.No decision to carry out or approve an action other than an action listed in section 3(B)hereof or section 617.12 of 6 NYCRR as Type II action, shall be made by the Town Planning Board or by a department, board commission, officer, or employee of the town until there has been full compliance with all requirements of this local law and Part 617 of Title 6 NYCRR, provided, however, that nothing herein shall be construed as prohibiting:<ul style="list-style-type: none">a. The conducting of contemporaneous environmental, engineering, economic feasibility or other studies and preliminary planning and budgetary processes necessary to the formulation of a proposal for action which do not commit the town to approve, commence, or engage in such action or;b. the granting of any part of an application which related only to technical specifications and requirements, provided that no such partial approval shall entitle or permit the applicant to commence the action until all requirements of this local law and Part 617 of Title 6 NYCRR have been fulfilled.							
Flood Damage Prevention Law	Yes	Adopted 1987, Amended 10/18/2010	Local, State, Federal	Administered by County Code Official Under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. Adopted 12/4/79 <ul style="list-style-type: none">Local Law No. 1 of the year 2010. A local law for flood damage prevention as authorized by the New York state constitution, Article IX, and Section 2 and Environmental Conservation Law, Article 36, enacted by the Town Board of the Town of Smithville. The Town Board of the Town of Smithville finds that the potential and /or actual damages from flooding and erosion may be a problem to the residents of the Town of Smithville and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life.It is the purpose of this local law to:<ul style="list-style-type: none">(1)regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;(2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;(3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;(4) control filling, grading, dredging and other development which may increase erosion or flood damages;(5) regulate the construction of flood barriers which will unnaturally divert flood waters, or which may increase flood hazards to other lands, and;(6) qualify and maintain for participation in the National Flood Insurance ProgramThe areas of special flood hazard for the Town of Smithville. Community Number 361040 are identified and defined on the applicable documents prepared by the Federal Emergency Management Agency as certain Flood Insurance Rate Map panel numbers whose effective date is, November 26, 2010.The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisionsA floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit.The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard;<ul style="list-style-type: none">(1) Proposals shall be consistent with the need to minimize flood damage;(2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and,(3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels.New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation.							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Municipal Separate Storm Sewer System (MS4) Regulation	No	EPA Phase II Stormwater Rule	Federal	-	Yes	-	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	County	County OEM	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Adaptation	No	NYS Executive Law, Article 75	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Other Applicable Codes, Ordinances, & Requirements	Yes	Junk Law, 1968	-	-	-	-	-
Comment: <ul style="list-style-type: none"> By the adoption of the local law of the town board of the town of Smithville declares its intent in so doing to be to regulate, control, and license the activities or businesses known as auto "graveyards", junk yards, secondhand parts, collection areas, the processing of used metals for resale and the dumping, storage and disposal of waste, second-hand or used materials of whatever composition. The said town board hereby declares that such activities or businesses can constitute a hazard to property and persons and a public nuisance. Such materials may be highly flammable and sometimes explosive. Gasoline tanks on old or junk motor vehicles often contain, in some quantity, combustible gasoline, the engine and other parts of such motor vehicles and frequently covered with grease and oil, which is also flammable. The tires, plastic seats, top and other elements of such motor vehicles are also inflammable. Batteries and other elements of such motor vehicles can contain acid and other matter potentially harmful as well as sharp metal or glass edges or points from which humans can receive serious cuts, abrasions, and wounds. Such motor vehicles can constitute attractive nuisances to children and certain adults, thereby endangering human life. The presence of such junk yards, even in areas zoned for business or industry is unsightly and tends to detract from the value of the surrounding land and property unless such areas and property are maintained and operated. 							
Planning Documents							
Comprehensive Plan	Yes	2012 – Updated October 2017	Local	Local Planning Board	No	Yes	N/A
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level <ul style="list-style-type: none"> Comprehensive Plan for The Town of Smithville, October 2017. The Town Board must pass a resolution adopting the comprehensive plan in order to make the guidelines and recommendations it contains official. The Comprehensive Plan was adopted by resolution at the November 19, 2012 Town of Smithville, Town Board meeting. Because the Chenango River is a tributary to the Susquehanna River, its watershed is within the jurisdiction of the Susquehanna River Basin Commission (SRBC), a Harrisburg, Penn.-based agency created by the federal government to coordinate management of the interstate water resources of the Susquehanna River basin. Within the basin and therefore, within the Town of Smithville the SRBC has the power to: review and approve flood control projects; establish flood warning systems; inventory and manage water 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
<p>resources; monitor water quality; develop water supply storage and release programs; regulate water consumptive uses; regulate releases of water to protect fisheries and recreational uses, and to ensure future availability of flows to the Chesapeake Bay</p> <ul style="list-style-type: none"> Floodplain lands are best used as recreation areas, green space, and for agricultural activities (such as pasture and crops that require minimal investment of infrastructure which might be damaged or lost, and do not leave large areas bare and easily eroded during a flood). While imposing more strict regulations and restricting development of floodplains may seem to be a hardship to landowners, it actually prevents the community from having to suffer loss and hardships. The Plan suggests that the town may wish to amend the Site Plan Review Law to require all new construction be outside floodplains wherever possible and include storm water management plans. The Plan also states that the town has extensive authority to protect its aquifers from pollution and to ensure that storm water management measures on new development are effective so that runoff will be clean and allowed to infiltrate into the ground to recharge the aquifer. The town can use the environmental review State Environmental Review Act process to impose mitigating conditions on any new development that will adversely affect an aquifer. It can adopt land use laws to prevent misuse of the aquifer and can use overlay zoning to require special measures to protect water quality in especially sensitive watersheds. There have been discussions about the water quality within the more heavily populated portion of Smithville Flats. This issue should be revisited to test and determine the current quality of the water supply and to consider the costs/benefits of improving it (if necessary.) Significant flood plains in Smithville exist only along the Genegantslet Creek. 							
Capital Improvement Plan	Yes	General Municipal Law Section 99-g.	Local	?	No	No	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	?	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	12/5/1979	County	County Code Enforcement	No	Yes	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	No	-	Local	-	No		
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	NYS Constitution - Article 9; Statute of Local Governments. Section 10 (7)	Local	-	Yes	No	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	Yes	-	County	County Emergency Management	No	No	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	Yes	-	County	County Planning Department	No	-	-
Comment:							
Agriculture Plan	Yes	NYCRR Part 390 Agricultural and Farmland Protection - Right to Farm Law, 2019	Local	Town Board	Yes	Yes	N/A
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers. <ul style="list-style-type: none"> Local Law No. 1, 2019, Town of Smithville Right to Farm Law, enacted by the Town Board. It is the general purpose and intent of this Local Law to maintain and preserve the rural traditions and character of the Town of Smithville, to permit the continuation of the practice of farming within the Town, to protect the existence and operation of established farms, and to encourage the initiation and expansion of farming practices. Operators and farmers as above defined herein, as well as those employed, retained, or otherwise authorized to act on behalf of an operator or farmer, may lawfully engage in "agricultural practices" and engage in "farm operations" upon "farmland", located within the Town of Smithville, Chenango County, New York, at any and all such times and all such locations as are reasonable and necessary to conduct and engage in "agricultural practices" and "farm operations". 							
Other (tourism, business dev, etc.)							
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Local OEM	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	Local OEM	Yes	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments.	Provide Mitigation Action # if applicable.
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other: Emergency Response Plan	Yes or No	-	Local		No		
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							

Table 9.29-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Local Planning Board has Site Plan Review and Subdivision Regulation authority. County Code Enforcement does building permits.
Permits are tracked by hazard area. For example, floodplain development permits.	No
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No. A Dollar General is proposed to be built this summer. Buildout is fairly stagnant and solely for residential purposes.

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Smithville.

Table 9.29-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		



Resources	Available? (Yes or No)	Department/ Agency/Position
Planning Board	Yes	Town Planning Board
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	Countywide mutual aid fire agreements. Highway equipment mutual assistance.
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County
Engineers or professionals trained in building or infrastructure construction practices	Yes	County
Planners or engineers with an understanding of natural hazards	Yes	County
Staff with expertise or training in benefit/cost analysis	Yes	County; Town Board Members
Professionals trained in conducting damage assessments		
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County
Scientist familiar with natural hazards	Yes	Chenango county soil/water
NFIP Floodplain Administrator (FPA)	Yes	MOU with Chenango County Floodplain Administrator
Surveyor(s)	Yes	County-if available manpower
Emergency Manager	Yes	Chenango County Emergency Management; Genegantslet Fire Dept.
Grant writer(s)	Yes	County; Cornell Co-Operative Ext.
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Smithville.

Table 9.29-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	-



Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Smithville.

Table 9.29-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
Personnel skilled or trained in website development?	Yes – the Town has a contractor that maintains the municipal website
Hazard mitigation information available on your website; if yes, describe	Yes – the Town posts news and upcoming information on their website and includes details on the HMP
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Yes – Hyper-Reach and Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Smithville.

Table 9.29-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	-	-	-

Note:

N/A Not applicable
NP Not participating
- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

**Table 9.29-9. Adaptive Capacity**

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Low
Drought	Medium
Extreme Temperatures	Medium
Flood	High
Harmful Algal Bloom	Medium
Invasive Species	Low
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Low

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Smithville.

Table 9.29-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Smithville	1	0	\$0	0	-	0

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. RL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Smithville has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.



Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Smithville has not completed any Community Assistance Visits (CAV), due to its location outside of the SFHA.

Regulatory

The Town of Smithville Flood Damage Prevention Ordinance (FDPO) was last updated on October 18, 2010. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Emergency Response Plans:** Reference the findings and recommendation of this HMP update in the pending update of the Emergency Management Plan
- **Infrastructure Protection/Floodplain Management:** Retrofit flood prone roadways such as Pollard, Stone-Quarry, Tucker, Hammerle, Winner, South Tyner and Buckley Hollow Roads by increasing size/capacity of drainage pipes, crossovers and rework diversion ditches.
- **Infrastructure Protection/Floodplain Management:** Prevent flooding and erosion along at risk areas in vicinity of Pollard, Stone Quarry, and Buckley- Hollow roads where heavy run-off occurs from Tillotson and Ludlow Creeks, by reinforcing stream banks and diversion ditches. Increase drainage pipe capacity by replacing existing piping.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

Evacuation routes are specific to hazard event and routes will vary according to the location and type of event. Residents should seek up-to-date information from the Chenango County Office of Emergency Management.

Sheltering

Church in Smithville and Smithville Town Hall has generator and Fire Department can all house residents during a disaster event.

Temporary Housing

Scout Park near Town Hall (ballfield has restrooms and wells), near post office town owns 13.5 acres; also land available on fields that could be used.

Permanent Housing

There is land near the post office that the town owns that could be used to relocate homes, with Town Board approval.



9.29.5 Hazard Event History Specific to the Town of Smithville

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Smithville's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.29-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.29-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 4, 2017	Thunderstorm Wind	No	A thunderstorm moved across the region and became severe. This thunderstorm produced severe winds and knocked over multiple trees in the vicinity of Highway 41 and Collier Road.	Property damages as a result of downed trees were estimated at \$10,000.
October 7, 2020	Thunderstorm Wind	No	Strong thunderstorm winds brought down trees on Round Pond Road.	Property damages as a result of downed trees were estimated at \$5,000.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.29.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Smithville's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute



is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.29-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None Identified				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Smithville. The Town of Smithville has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Smithville indicated the following:

- Disease Outbreaks for the Town have been low, even during the COVID-19 Pandemic.
- During the spring with snow melt off and any heavy rains, the rivers are high and the sleuth pipes are too small to handle the amounts of run off, also in the late summer months when rains from seasonal storms, we have the same problem. This is due to changes from the State and County repairing sleuth piping to handle problem areas, but downstream, the existing sleuth pope are not replaced to handle changes from major updates due to non-notifications to the Town and the budget of the Town. Due to this, Flood is a High risk for the Town.
- The Town works with County Ag Soil and Water to keep up to date on different types of Invasive Species problems.
- Wildfires don't seem to eb a problem due to the area in which we are in, and the state maintain the State Lands. We have had a few brush fires, but they were not a major problem. Therefore, Wildfire is a Low risk for the Town.



Table 9.29-13. Hazard Ranking Input

Disease Outbreak*	Drought	Extreme Temperature	Flood*	Harmful Algal Bloom	Invasive Species*	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire*
Low	Medium	Medium	High	Medium	Low	Low	High	High	Low

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Buckley Hollow/Williams Rd. area: culvert too small during heavy water flow
- Pollard Road: culvert issues
- Stone Quarry Road: culvert sizing and road-side damage during heavy rainfall

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Power Outages on State Highway 220 can be prolonged since we are at the end of the line.
- Power lines subject to overhanging older trees subject to the weather-wind-rain snow. No preventive care.
- Smithville Flats has a dam above it which could break without proper mitigation.
- No Cell Coverage is a major vulnerability - for both normal times and hazards. Especially if phone lines (dial up internet) are down.
- Older Trees covering power lines in Smithville.
- NY-206 and CR-2 flooding due to Creek overflow.

9.29.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.29-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
TSM-1	Hansmann's Mill confluence of Genegantslet and Cincinnatus Creek issues.	Flood, Severe Storm		Hansmann's Mill confluence of Genegantslet and Cincinnatus Creek issues.	Complete	Level of Protection	-	County replaced bridge in November 2020 and is meeting with FEMA to replace culverts that were flooded out in October '99.
						Damages Avoided; Evidence of Success	-	
TSM-2	Beaver Dam Monitoring and Control	Flood, Severe Storm	Municipal DPW; support from NYSDEC	Control construction of Beaver Dams by monitoring, cleaning ditches and blocked culverts in areas along Pollard and Stone Quarry roads.	Ongoing	Level of Protection	-	2021-T. Smithville-001 will help alleviate beaver dam problems so discontinue – in progress as of November 2020
						Damages Avoided; Evidence of Success	-	
TSM-3 (Former TS-1)	Update Emergency Management Plan, including references to the findings and recommendations of this HMP update.	All	Town Council, County	Update Emergency Management Plan, including references to the findings and recommendations of this HMP update.	Complete	Level of Protection	-	Completed 2019
						Damages Avoided; Evidence of Success	-	
TSM-4 (Former TS-2)	Retrofit flood prone roadways	Flood, Severe Storm	Town council, highway department, County	Retrofit flood prone roadways such as Pollard, Stone-Quarry, Tucker, Hammerle, Winner, South Tyner and Buckley Hollow Roads by increasing size/capacity of drainage pipes, crossovers and rework diversion ditches.	In Progress	Level of Protection	-	The Town will continue Pollard Rd Culvert Replacements as 2021-T. Smithville-001. The Town applied for BRIC funding in 2020 but was denied.
						Damages Avoided; Evidence of Success	-	
TSM-5 (Former TS-3)	Prevent flooding and erosion along at risk areas in vicinity of Pollard, Stone Quarry, and	Flood, Severe Storm	DEC Highway Dept., Local town council/highway department	Reinforcing stream banks and diversion ditches. Increase drainage pipe capacity	In Progress	Level of Protection	-	See 2021-T. Smithville-001
						Damages Avoided;	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Buckley- Hollow roads where heavy run-off occurs from Tillotson and Ludlow Creeks		County Highway	by replacing existing piping.		Evidence of Success		
TSM-6 (Former TS-4, TS-5)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification. Public education and awareness program for floodplain residents. Updates to NFIP floodplain mapping. Promotion of "Firewise" programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	This is part of the Town's daily operations.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Smithville has not identified any mitigation projects or initiatives apart from those included in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Smithville worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.29-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Smithville would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.29-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.29-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Smithville-001	Pollard Rd North & South ends	1, 2, 3, 4, 6, 7	Flood, Severe Storm, Severe Winter Storm	Problem: There have been over 60 recent road washouts and closures of Pollard Rd during storm and flood events. Solution: The Town will replace the existing box culverts with larger box culverts, allowing water to flow through the pipe, and not overflow, therefore elimination wash outs and closures.	Yes	No	1 month	Smithville Highway Department	\$399,000	High, it costs \$9,000 to repair road each time it floods	FEMA BRIC, NYSDHSES	High	SIP	SP
2021-T. Smithville-002	Tree Maintenance	1, 3, 6, 7	All Hazards	Problem: Many Smithville residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events. Solution: The Town of Smithville will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are nearby power lines as to reduce frequency of power outages.	No	No	Ongoing	Town of Smithville	Low	High	Municipal Budget, FEMA HMA	High	LPR	PR, PP
2021-T. Smithville-003	High Hazard Dam Outreach	1, 2, 3, 4, 5, 7	Flood	Problem: The NYSDEC-owned Long Pond Dam is located within the Town of Smithville and is classified as a "high hazard" Class C dam. Solution: The Town of Smithville will collaborate with the NYSDEC on necessary EAP updates, as well as inspections and engineering assessments. If significant increased risk is found at the Dam, the Town and NYSDEC Division of Lands and Forests will work together to develop a plan to update and improve the conditions of the dam.	Yes	No	Short, within 5 years	Town of Smithville, NYSDEC	Low	High	Municipal Budget	High	EAP	PR



Table 9.29-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Smithville-004	Genegantslet Creek Project Dam 2a Owner Outreach	1, 2, 3, 4, 5, 7	Flood	Problem: The Genegantslet Creek Project Dam 2a has experienced recent ownership changes that have not been filed with the NYSDEC Division of Dam Safety. Solution: The Town will find the new owner of the dam and conduct outreach to the dam owner about the condition of the dam and potential risks posed by a dam failure and support an inspection plan of the dam by an engineer in accordance with the existing EAP and NYSDEC Dam Safety guidelines. The Town will aid in the development of an updated EAP as needed.	Yes	No	Short, within 5 years	Town of Smithville, NYSDEC	Low	High	Municipal Budget	High	EAP	PR

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain



Mitigation Category:

- *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 manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NSP)* – These are actions that minimize damage and losses, and also 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

CRS Category:

- *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 also 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 9.29-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Smithville-001	Pollard Rd North & South ends	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2021-T. Smithville-002	Tree Maintenance	1	1	1	1	1	1	1	0	0	1	1	1	0	1	11	High
2021-T. Smithville-003	High Hazard Dam Outreach	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High
2021-T. Smithville-004	Genegantslet Creek Project Dam 2a Owner Outreach	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.29.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.29-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak	002				002	002				
Drought	002				002	002				
Extreme Temperatures	002				002	002				
Flood	002	001		003, 004	002, 003, 004	002			001	
Harmful Algal Bloom	002				002	002				
Invasive Species	002				002	002				
Natural Gas	002				002	002				
Severe Storm	002	001			002	002			001	
Severe Winter Storm	002	001			002	002			001	
Wildfire	002				002	002				

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.29.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Smithville followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: Road Supervisor and Town Supervisor. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

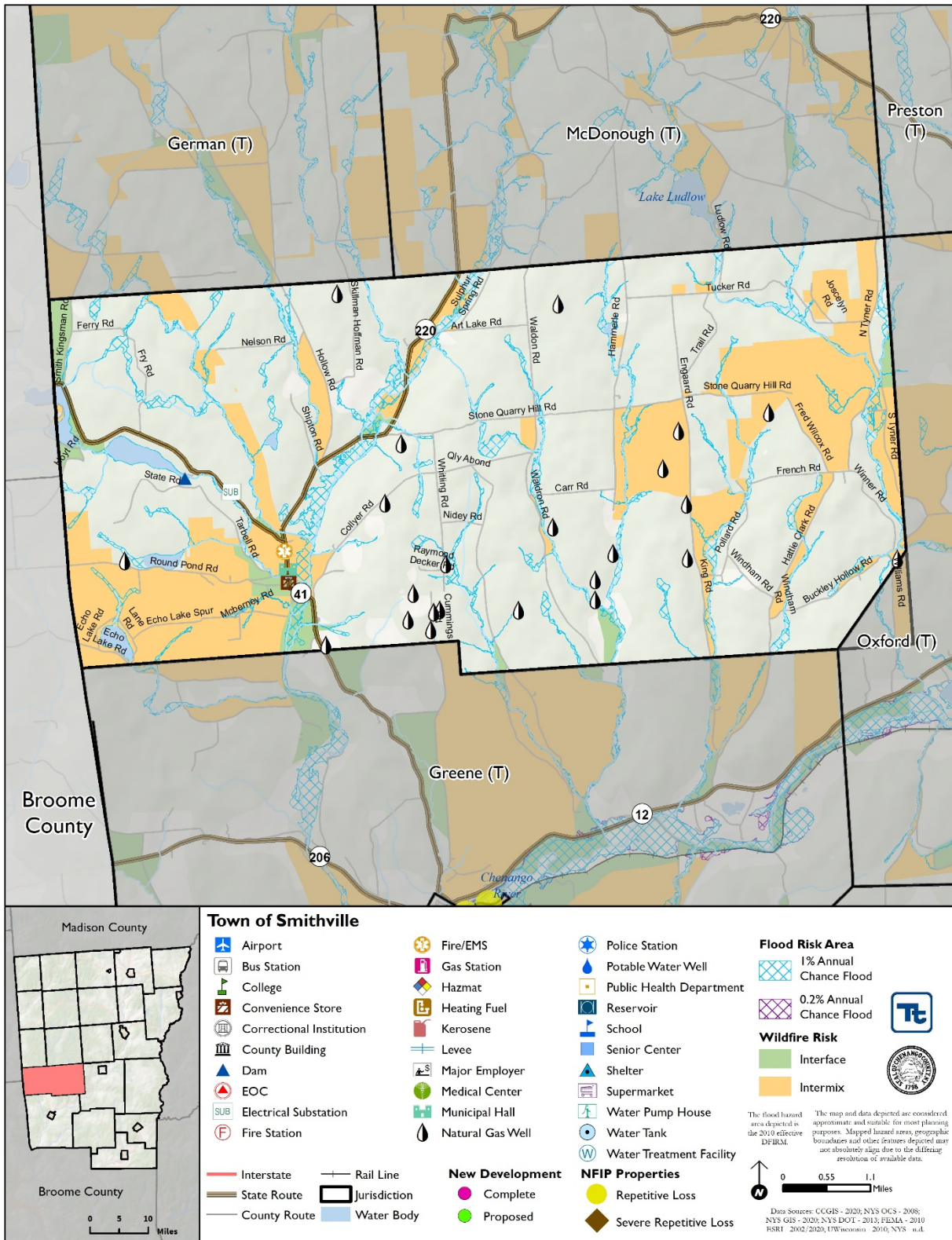
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.29.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Smithville that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Smithville has significant exposure. The map is illustrated below.



Figure 9.29-1. Town of Smithville Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Pollard Rd North & South ends		
Project Number:	2021-T. Smithville-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Severe Winter Storm		
Description of the Problem:	There have been over 60 recent road washouts and closures of Pollard Rd during storm and flood events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will replace the existing box culverts with larger box culverts, allowing water to flow through the pipe, and not overflow, therefore elimination wash outs and closures.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	High, it costs \$9,000 to repair road each time it floods
Useful Life:	50 years	Goals Met:	1, 2, 3, 4, 6, 7
Estimated Cost:	\$399,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	ASAP
Estimated Time Required for Project Implementation:	1 month	Potential Funding Sources:	FEMA BRIC, NYS DHSES
Responsible Organization:	Smithville Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Make repairs each time road floods	\$9,000/each time	Road has flooded 60+ times in recent years, not feasible or cost-effective
	Eliminate roadway	N/A	Will displace multiple homes and residences, not feasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Pollard Rd North & South ends	
Project Number:	2021-T. Smithville-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	People will need an alternative way to get to their homes when road is closed
Property Protection	1	Project will stop flooding of properties downstream
Cost-Effectiveness	1	Will save at least \$20,000-\$30,000 each time the roadway floods
Technical	1	Long term solution and will save tax dollars
Political	1	Has been an objective of the Town of years but there is no budget
Legal	1	Town has jurisdiction
Fiscal	0	Insufficient Town budget to do project and will require grant assistance
Environmental	1	Will impact environment and will comply with all regulations
Social	1	Will not impact neighborhoods or disrupt lives
Administrative	1	Will contract an engineering company to oversee project
Multi-Hazard	1	Flood, Severe Storm, Severe Winter Storm
Timeline	1	Each culvert can be replaced in 1 – 1 ½ months
Agency Champion	1	Town Supervisor and Residents
Other Community Objectives	1	
Total	13	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Tree Maintenance		
Project Number:	2021-T. Smithville-002		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	Many Smithville residents expressed concerns about power outages and tree debris exacerbating the issue during and after storm events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Smithville will develop and implement a tree trimming and maintenance program to identify, locate, and manage dead, decaying, and at-risk trees. Special care will be taken to reassess trees after hazard events and increase removal of excess limbs as needed. The Town will also closely monitor and remove any trees or limbs that are nearby power lines as to reduce frequency of power outages.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year MRP wind event	Estimated Benefits (losses avoided):	High, reduces power outages
Useful Life:	99 years	Goals Met:	1, 3, 6, 7
Estimated Cost:	Low	Mitigation Action Type:	LPR
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Ongoing
Estimated Time Required for Project Implementation:	Less than 6 months to being identifying	Potential Funding Sources:	Municipal Budget, FEMA HMA
Responsible Organization:	Town of Smithville	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Ground Power Lines	\$3 M+	Expensive, not cost-effective, will disrupt state and natural lands
	Remove all trees surround power lines	N/A	Not environmentally or ecologically sound, will not guarantee reduction in power outages
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Tree Maintenance	
Project Number:	2021-T. Smithville-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces probability of power outages caused by debris during hazards
Property Protection	1	Prevents property from falling trees
Cost-Effectiveness	1	
Technical	1	Town can support implementation
Political	1	
Legal	1	
Fiscal	1	
Environmental	0	Possible concerns with over-trimming, tree removal
Social	0	
Administrative	1	
Multi-Hazard	1	All Hazards, Severe Storms
Timeline	1	Ongoing
Agency Champion	0	
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



9.30 Town of Smyrna

This section presents the jurisdictional annex for the Town of Smyrna. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Town participated in the planning process; an assessment of the Town of Smyrna's risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.30.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Smyrna's hazard mitigation plan primary and alternate points of contact.

Table 9.30-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Michael R. Khoury, Town Supervisor PO Box 21, Smyrna, NY 13464 607-627-6275 reedgraphicsllc@gmail.com	Chris Cook, Highway Superintendent PO Box 154, Smyrna, NY 13464 607-316-7110 chrissmyrnahwy@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.30.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 1,067.

The Town of Smyrna is comprises a total area of 42.2 sq. miles. It is located adjacent to the border of Madison County, west of the Town of Sherburne and east of the Town of Otselic. NYS Rte. 80, an east-west highway and County Rte. 16 are the primary routes through the Town of Smyrna.

The Town of Smyrna was settled around 1792. It was incorporated from the Town of Sherburne, as the "Town of Stafford" in 1808. Within a month of incorporation as the Town of Stafford the name was changed to the Town of Smyrna, after the coastal city of Smyrna in ancient Greece.

Brigham Young, one of the founders of the Mormon Church, lived in the Town of Smyrna with a historical marker on County Highway 21 near Cole Road denoting the location of his boyhood home.

The Town of Smyrna is governed by an elected five member Town Board composed of a Town Supervisor, who also represents the town at the County Board of Supervisors, and four (4) Council members. This governing body will assume responsibility for adoption and implementation of this plan. The Town has an elected: Town Highway Superintendent; two (2) Town Justices and a Town Clerk.

9.30.3 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 understanding a jurisdiction's overall risk to its hazards of concern.



Table 9.30-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.30-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.30-2. Recent and Expected Future Development

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	-	0	-	1	0	0	-	0	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	2	0	0	-	0	-	0	-	0	-
Total	2	0	0	0	1	0	0	0	0	0
Property or Development Name	Type of Development		# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2015 to Present										
Janice Bays	New home		2		George Crumb Rd		None		Completed	
Baillie Lumber Co.	Commercial		2		Railroad Ave		None		Completed	
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
None identified										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.30.4 Capability Assessment

The Town of Smyrna performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.30.4). The Town of Smyrna



identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Smyrna and where hazard mitigation has been integrated.

Table 9.30-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local, State	Handled by County	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan" ¹¹ or "in accordance with a comprehensive plan." ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 2007	Local	Local Planning Board	No	Yes	N/A
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
<ul style="list-style-type: none">Local Law No. 1, Subdivision Regulations, 2007, enacted by the Town Board of the Town of Smyrna. By the authority of the resolution of the Town Board of the Town of Smyrna, adopted pursuant to the provision of Article 16 of the Town Law of the State of New York, the Planning Board of the Town of Smyrna is authorized and empowered to approve plats showing lots, blocks or sites, with or without streets or highways, to approve the development of entirely or partially undeveloped plats already filed in the office of the Clerk of the county and to approve preliminary plats within that part of the Town of Smyrna outside the limits of any incorporated village. It is declared to be the policy of the Planning Board to consider land subdivision plats as part of a plan for the orderly, efficient and economical development of the town. This means, among other things, that land to be subdivided shall be of such character that it can be used safely for building purposes without danger to health or peril from fire, flood or other menace; that proper provision shall be made for drainage, water supply, sewerage and other needed improvements; that all proposed lots shall be so laid out and of such size as to be in harmony with the development pattern of the neighboring properties; that the proposed streets shall compose a convenient system conforming to the Official Map.The Planning Board shall review the location of the proposed subdivision for the presence of any adverse natural considerations limiting development on the site. If the site falls into areas on soils maps denoted as having "moderate," "severe" or "very severe" limitation or within flood hazard areas or areas of unique hydrologic or natural habitat areas (including wetlands), the Planning Board may require the applicant to consult with the appropriate technical review or assistance agencies. The Planning Board may require that design techniques such as clustering (in accordance with 114) be used to avoid development in these critical resource areas and shall not approve a sketch plan which has failed to adequately address these critical resources concerns (soils, flood hazards, hydrologic and natural habitat resources).Land to be subdivided shall be of such character that it can be used safely for building purposes without danger to health or peril from fire, flood or other menace. Subdivisions shall conform to and shall be in harmony with the Comprehensive Plan.Flood areas Land subject to serious or regular flooding shall not be subdivided for residential occupancy or for such other uses as may increase danger to life or property or aggravate the flood hazard, but such land may be used for such uses, or in such a way, that the flood danger to this property and other upstream or downstream properties will not be increased and periodic or occasional							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<p>inundation will not be a substantial threat to life or property. The provisions of this section shall apply to all land falling within the one-hundred-year flood limit as shown on maps prepared and amended by the Federal Emergency Management Agency.</p> <ul style="list-style-type: none"> Development of steep slope, over twelve percent (12%), sites will be conditionally acceptable only if there is no prudent or feasible alternative site and erosion and sedimentation control measures are incorporated in the design, construction and operation of the development according to standards set by the United States Soil Conservation Service. 							
Stormwater Management	Yes	Subdivision Regulations	Local, State	NYSDEC permits required for any major construction projects	Yes	Yes	See above
<p>Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department</p>							
Post-Disaster Recovery	No	-	-	-	No	-	2021-Chenango County-001
<p>Comment:</p>							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	No	-
<p>Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.</p>							
Growth Management	No	-	Local	-	No	-	-
<p>Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.</p>							
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a	Local	Local Planning Board	No	No	-
<p>Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.</p>							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	-	Yes	N/A	N/A
<p>Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019</p>							
Flood Damage Prevention	Yes	Adopted 4/1987, Amended 11/1/2010	Federal, State, Local	Administered by County Code Official under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
<p>Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> Local Law No. 1, Flood Damage Prevention, enacted by the Town Board of the Town of Smyrna. The Town Board of the Town of Smyrna finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Smyrna and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. 							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<ul style="list-style-type: none"> It is the purpose of this local law to: <ol style="list-style-type: none"> (1) regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters, or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program The areas of special flood hazard for the Village of Smyrna, Community Number 361378, are identified and defined on the documents prepared by the Federal Emergency Management Agency, namely, Flood Insurance Rate Map Panel Numbers: 36017C0080E 36017C0090E, whose effective date is, November 26, 2010. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and ensuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; <ol style="list-style-type: none"> (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4)	Yes	EPA Phase II Stormwater Rule	Federal	-	Yes	-	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Smyrna Fire District/Chenango County EMS	Yes	N/A	N/A
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change	No	NYS Executive Law, Article 75	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Other	Yes	-	-	-	-	-	-
Comment: <ul style="list-style-type: none"> Junkyard Regulations. Adopted 1966 Sanitary Code. Adopted 1991 Mobile Home Park. Adopted 1993 Right to Farm Adopted. 1990 							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Planning Documents							
Comprehensive Plan	Yes	Adopted 2004	Local	Town Supervisor	No	No	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	Yes	General Municipal Law Section 99-g.	Local	Town Supervisor	No	No	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	Yes	-	Local	Town Supervisor	No	No	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	-	State	NYSDEC permits and Federal Agencies	No	-	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local, State	NYSDEC	No	Yes	See above
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	-	Local	-	Yes	-	-
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No	-	Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	Yes	NYCRR Part 390 Agricultural and Farmland Protection -	Local	Chenango County	Yes	No	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Smyrna Fire District/Chenango County EMS	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Continuity of Operations Plan	Yes	-	Local	Town Supervisor	No	No	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other	Yes	-	-	-	-	-	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment:							
• Emergency Response Plan. State Mandated							

Table 9.30-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Issued by Chenango County Code Enforcement
Permits are tracked by hazard area. For example, floodplain development permits.	Yes, Chenango County Code Enforcement
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	1 parcel- 26 acres/old shale bed not in use

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Smyrna.

Table 9.30-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Reports to the Town Board and Supervisor
Mitigation Planning Committee	Yes	Highway Superintendent
Environmental Board/Commission	No	
Open Space Board/Committee	No	
Economic Development Commission/Committee	No	
Warning Systems / Services	Yes	Village Siren/ Phone Tree and Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	Yes	Road drainage improvement
Mutual aid agreements	Yes	Town of Sherburne & Lebanon Hwy Dept's
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract if necessary
Professionals trained in conducting damage assessments	No	
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	Chenango County Code Enforcement
Surveyor(s)	Yes	County Highway Department
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Plymouth Fire Department



Resources	Available? (Yes or No)	Department/ Agency/Position
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Smyrna.

Table 9.30-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes- Subdivision application fees
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes. Participating in the Chenango County Hazard Mitigation Plan
Open Space Acquisition funding programs	No
Other	Yes

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Smyrna.

Table 9.30-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Michael R. Khoury - Supervisor
Personnel skilled or trained in website development?	Contracted to local firm
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Road reviews conducted by Hwy Superintendent, call ins from residents; Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No



Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Other	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Smyrna.

Table 9.30-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other	No	-	-

Note:

N/A Not applicable
NP Not participating
- Unavailable

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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.30-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use
Medium Capacity may exist; but is not used or could use some improvement
Low Capacity does not exist or could use substantial improvement
Unsure Not enough information is known to assign a rating



National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Smyrna.

Table 9.30-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Smyrna	5	3	\$865,000	2	-	1

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town of Smyrna has its own Planning Board that approves Land Subdivisions.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of Smyrna has not completed any Community Assistance Visits (CAV).

Regulatory

The Town of Smyrna's Flood Damage Prevention Ordinance (FDPO) was last updated on November 1, 2010. The Town's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Infrastructure Protection/Floodplain Management:** Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in



wetland areas that are adjacent to town roads. The troublesome areas which often flood creating hazardous conditions are along the small streams adjacent to: Curncross Rd., Gibson-Taylor Rd, Coye Hill Rd.

- **Infrastructure Protection/Floodplain Management:** Continue/Enhance Stormwater Management: Develop a plan to upgrade our storm water system by increasing the size of culverts to increase capacity, accommodating larger storm events and address flooding along all primary roads in the Town of Smyrna.
- **Infrastructure Protection/Floodplain Management:** Water diversion project to redirect water away from landowner (John Gottler) and increase the structural stability and drainage capacity by installing culverts along Quaker Hill Road, repairing adjacent land and roadway.
- **Infrastructure Protection/Floodplain Management:** Bridge repair to rebuild water-damaged structure, replace eroded sides and add 60" x 40' drainage pipe culvert.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

County Route 20, State Highway 80, and various local roads have been identified as evacuation routes within the Town. However, due to changing road conditions and availability, residents should refer to the Chenango County Emergency Management website for up-to-date information.

Sheltering

The Smyrna Town Hall can be used as a sheltering location and heating/cooling center during events. Additionally, the Smyrna United Methodist Church has been identified by the Red Cross National Shelter Search (NSS) as a possible shelter location.

Temporary Housing

The CHIPS Schoolhouse Apartments, if available, can be used as temporary housing solutions for displaced residents within the Town.

Permanent Housing

The Town of Smyrna identified 1 parcel consisting of 26 acres/old shale bed not in use that could be used as buildable land if necessary.

9.30.5 Hazard Event History Specific to the Town of Smyrna

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Smyrna's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.30-11 provides details regarding municipal-specific loss and damages the Town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.



Table 9.30-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
October 31, 2019	Flash Flood, Heavy Rain	Yes	Low pressure moved northeast through the Great Lakes and St. Lawrence River valley, bringing a plume of deep moisture into Central New York. Rain, with embedded bands of thunderstorms, developed ahead of the low pressure area during the day of 31 October. A widespread swath of 1 to 3 inches of rain fell throughout the region, with localized amounts in the 3 to 5 inch range. Some of this heavy rainfall fell in a short amount of time, producing several areas of flash flooding.	A bridge on Route 80 was severely damaged by flooding, resulting in an estimated \$20,000 in property damages.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.30.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Town of Smyrna's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).



The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.30-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None identified at this time				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Smyrna. The Town of Smyrna has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Town of Smyrna indicated the following:

- There are frequent Heavy Rains & Ice Events that adversely affect roads, however Skilled personnel within the Town with updated equipment reduce risk for residents.
- Agreement with calculated rankings – no changes made.

Table 9.30-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	High	Low	Medium	Low	High	Medium	Medium

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- None identified at this time

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:

- Dunham Road, Pigeon Hill Road, Upperville Back Road & Hopkins-Crandall Road all being mitigated to prevent future flood water damage. Mostly floodwater & washed out debris.



9.30.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.30-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TSM-1	Quaker Hill Water Diversion	Severe Storms, Flood	Town of Smyrna Highway Department	Water diversion project to redirect water away from landowner and increase the structural stability and drainage capacity by installing culverts along Quaker Hill Road, repairing adjacent land and roadway.	Replaced 2 foot drainpipe with 3 drainage pipes 2020 – installed a 4" drainage pipe to remediate	Cost	\$18,000	Observation and review to confirm corrective action was effective Cost: \$18,000 (approx.)
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TSM-2	Gibson Taylor Road Improvements	Flood	Town of Smyrna Highway Department	Bridge repair to rebuild water-damaged structure, replace eroded sides and add 60" x 40' drainage pipe (culvert).	Added a 4 foot Drainage pipe	Cost	\$2,200	New pipe / cleared beaver dam debris Observation and review ongoing. Cost: \$ 2,200 (approx.)
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TSM-3 (Former TSM-1)	Stormwater Management Upgrades	Flood, Severe Storm	Town Highway Department, Chenango County Soil/Water; NYDEC	Develop a plan to upgrade our storm water system by increasing the size of culverts to increase capacity, accommodating larger storm events and address flooding along all primary roads in the Town of Smyrna. Please see specific projects identified above.	Installed where mitigation is needed,.	Cost	-	Discontinue – ongoing action; the town installs mitigation measures where needed
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TSM-4 (Former TSM-2)	Beaver Dam Monitoring and Control	Flood, Severe Storm	NYSDEC, Town of Smyrna DPW	Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland	Identifying beaver dam areas and keeping it clear of debris.	Cost	-	Discontinue – ongoing action; the town identifies beaver dam areas and keeps those areas clear of debris
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				areas that are adjacent to town roads. The troublesome areas which often flood creating hazardous conditions are along the small streams adjacent to: Curncross Rd., Gibson-Taylor Rd, Coye Hill Rd.				
TSM-5 (Former TSM-3, -4)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none">Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.Public education and awareness program for floodplain residents.Updates to NFIP floodplain mapping.Promotion of “Firewise” programs in the County.Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost	-	Discontinue – this is an ongoing action for the town
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Smyrna has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- The Town received FEMA and State funding in 2020 for damages and remediation projects.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Smyrna worked with the consultant and the Chenango County Department of Planning & Development after attending the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.30-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of Smyrna would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.30-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.30-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-T. Smyrna-001	Corner of Simons Spurs Road and Beaver Meadow Rd Culvert Upgrade	1, 2, 3, 4, 6	Flood, Severe Storm, Stormwater Flooding	Problem: This area frequently experiences stormwater flooding resulting in damages to roads and culverts. Solution: The Smyrna Highway Department will upgrade the 3'diameter culvert to a 5' diameter culvert for water diversion.	No	No	3 weeks	Smyrna Highway Department	\$200,000	Prevent damages to roads and culverts, and reoccurring erosion issues.	FEMA BRIC, HMA; NYS DOT	High	SIP	SP
2021-T. Smyrna-002	Corner of Quaker Hill Road & Coye Hill Road Culvert Upgrade	1, 2, 3, 4, 6	Flood, Severe Storm, Stormwater Flooding	Problem: This area frequently experiences stormwater flooding resulting in damages to roads and culverts. Solution: The Smyrna Highway Department will upgrade the 2'diameter culvert to a 4'diameter culvert for water diversion away from developed areas.	No	No	3 full days	Smyrna Highway Department	\$10,000	Prevent damages to roads and culverts, and reoccurring erosion issues.	FEMA BRIC, HMA; NYS DOT	High	SIP	SP
2021-T. Smyrna-003	Intermediate Hazard Dam Outreach	1, 2, 3, 4, 5, 7	Flood	Problem: The privately-owned Norwich YMCA Recreation Pond Dam is located within the Town of Smyrna and is classified as an "intermediate hazard" Class B dam. Solution: The Town of Smyrna will conduct outreach to the dam owner about the condition of the dam and potential risks posed by a dam failure and support an inspection plan of the dam by an engineer in accordance with the existing EAP and NYSDEC Dam Safety guidelines. If significant risk is found, the Town will aid in the development of an updated EAP if necessary.	Yes	No	Short, within 5 years	Town of Smyrna	Low	High	Municipal Budget	High	EAP	PR
2021-T. Smyrna-004	RL Property Outreach	1, 2, 3, 5	Flood	Problem: There are 2 RL properties within the Town and 1 NFIP Policyholder living within the 1% SFHA (100-year floodplain). Solution: The Town will continue to support RL/SRL property owners to pursue flood mitigation projects by	No	No	Short	Town of Smyrna, Chenango County Code Enforcement	Low	High	Municipal Budget	High	EAP	PI



Table 9.30-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				supporting grant administration for homeowners. Chenango County Code Enforcement will provide damage assessments and inspections as necessary.										

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also 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

CRS Category:



- *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 also 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 9.30-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Smyrna-001	Corner of Simons Spurs Road and Beaver Meadow Rd Culvert Upgrade	1	1	1	1	1	1	1	0	-1	0	1	1	1	1	10	High
2021-T. Smyrna-002	Corner of Quaker Hill Road & Coye Hill Road Culvert Upgrade	1	1	1	1	1	1	1	0	-1	0	1	1	1	1	10	High
2021-T. Smyrna-003	Intermediate Hazard Dam Outreach	1	1	1	0	0	0	1	1	1	1	1	1	1	0	10	High
2021-T. Smyrna-004	RL Property Outreach	1	1	1	1	0	0	1	1	1	1	0	1	0	0	9	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.30.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.30-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood		001, 002		003, 004	003		004		001, 002	
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001, 002							001, 002	
Severe Winter Storm										
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.30.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Smyrna followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: The Superintendent's Office and Highway Department. The Town Supervisor represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

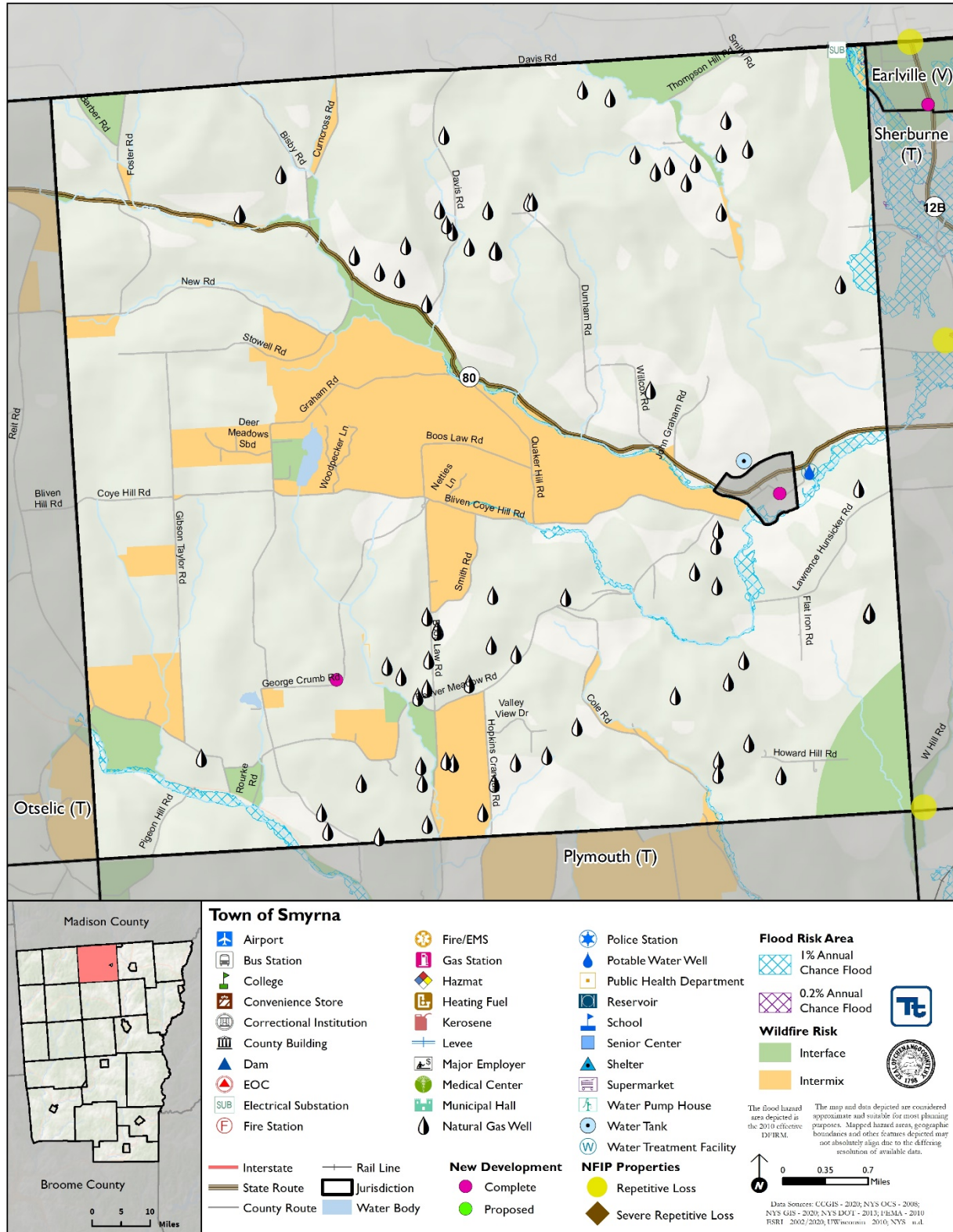
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.30.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Smyrna that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Smyrna has significant exposure. The map is illustrated below.



Figure 9.30-1. Town of Smyrna Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Corner of Simons Spurs Road and Beaver Meadow Rd Culvert Upgrade		
Project Number:	2021-T. Smyrna-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Stormwater Flooding		
Description of the Problem:	This area frequently experiences stormwater flooding resulting in damages to roads and culverts.		
Action or Project Intended for Implementation			
Description of the Solution:	The Smyrna Highway Department will upgrade the 3' diameter culvert to a 5' diameter culvert for water diversion.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100- year flood; severe storms	Estimated Benefits (losses avoided):	Prevent damages to roads and culverts, and reoccurring erosion issues.
Useful Life:	50 years	Goals Met:	1, 2, 3, 4, 6
Estimated Cost:	\$200,000 (approx..)	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Less than 6 months
Estimated Time Required for Project Implementation:	3 weeks	Potential Funding Sources:	FEMA BRIC, HMA; NYS DOT
Responsible Organization:	Smyrna Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Capital Development
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate roadway	N/A	Would disrupt farms and homes along road; unfeasible
	Replace with bridge	\$1M	Not cost effective; would disrupt landscape
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Corner of Simons Spurs Road and Beaver Meadow Rd Culvert Upgrade	
Project Number:	2021-T. Smyrna-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Avoiding a washout. Possible driving hazard
Property Protection	1	Adjacent properties could be vulnerable
Cost-Effectiveness	1	Effective use of public funds to ensure public safety
Technical	1	Definitely a long-term solution
Political	1	Road maintenance is a high priority to residents
Legal	1	This is a Town Road, maintained by our Highway Department
Fiscal	1	A grant would be the only source of funds available at this time.
Environmental	0	No consequences environmentally
Social	-1	Rural road with no impact on surrounding neighbors
Administrative	0	The Highway Dept. would require an outside engineer on this
Multi-Hazard	1	Dangerous driving conditions would be mitigated
Timeline	1	Less than 5 months
Agency Champion	1	This project would have the full support of the Town Board
Other Community Objectives	1	Capital Development, quality of life, safe roads are all in-line with present objectives
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Corner of Quaker Hill Road & Coye Hill Road Culvert Upgrade		
Project Number:	2021-T. Smyrna-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Stormwater Flooding		
Description of the Problem:	This area frequently experiences stormwater flooding resulting in damages to roads and culverts.		
Action or Project Intended for Implementation			
Description of the Solution:	The Smyrna Highway Department will upgrade the 2'diameter culvert to a 4'diameter culvert for water diversion away from developed areas.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	100- year flood; severe storms	Estimated Benefits (losses avoided):	Prevent damages to roads and culverts, and reoccurring erosion issues.
Useful Life:	50 years	Goals Met:	1, 2, 3, 4, 6
Estimated Cost:	\$10,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Less than 6 months
Estimated Time Required for Project Implementation:	3 full days	Potential Funding Sources:	FEMA BRIC, HMA; NYS DOT
Responsible Organization:	Smyrna Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning, Capital Development
Three Alternatives Considered (including No Action)			
Alternatives:	Alternatives:	Action	Estimated Cost
	No Action	No Action	\$0
	Elevate roadway	N/A	Would disrupt farms and homes along road; unfeasible
	Replace with bridge	\$1M	Not cost effective; would disrupt landscape
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Corner of Quaker Hill Road & Coye Hill Road Culvert Upgrade	
Project Number:	2021-T. Smyrna-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Avoiding a washout. Possible driving hazard
Property Protection	1	Adjacent properties could be vulnerable
Cost-Effectiveness	1	Effective use of public funds to ensure public safety
Technical	1	Definitely a long-term solution
Political	1	Road maintenance is a high priority to residents
Legal	1	This is a Town Road, maintained by our Highway Department
Fiscal	1	A grant would be the only source of funds available at this time.
Environmental	0	No consequences environmentally
Social	-1	Rural road with no impact on surrounding neighbors
Administrative	0	The Highway Dept. would require an outside engineer on this
Multi-Hazard	1	Dangerous driving conditions would be mitigated
Timeline	1	Less than 5 months
Agency Champion	1	This project would have the full support of the Town Board
Other Community Objectives	1	Capital Development, quality of life, safe roads are all in-line with present objectives
Total	10	
Priority (High/Med/Low)	High	



9.31 Village of Smyrna

This section presents the jurisdictional annex for the Village of Smyrna. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Village participated in the planning process; an assessment of the Village of Smyrna's risk and vulnerability; the different capabilities utilized in the Village; and an action plan that will be implemented to achieve a more resilient community.

9.31.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Village of Smyrna's hazard mitigation plan primary and alternate points of contact.

Table 9.31-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Lindsay Hodge, Village Clerk (607) 627-6716 smyrnaclerk@gmail.com	Robert Wright, Mayor (607) 627-6806 Conniewright116@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court St. Norwich, NY 13815 607-337-1795 StevenF@co.chenango.ny.us	

9.31.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Village was 213.

The Village of Smyrna is located in the Town of Smyrna near the northern border of Chenango County, along NYS Rt. 80. It is approximately four (4) miles from the Village of Sherburne.

Settlers came to the area 1790-1800. The Village was incorporated in 1829, it was re-incorporated 1898.

The Village of Smyrna is governed by an elected Mayor and Board of Trustees. This governing body will assume responsibility for adoption and implementation of this plan.

9.31.3 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 understanding a jurisdiction's overall risk to its hazards of concern. Table 9.31-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.31-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

**Table 9.31-2. Recent and Expected Future Development**

Type of Development	2016		2017		2018		2019		2020	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family										
Multi-Family										
Other (commercial, mixed-use, etc.)										
Total										
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
Recent Major Development and Infrastructure from 2015 to Present										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.31.4 Capability Assessment

The Village of Smyrna performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.31.4). The Village of Smyrna identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.



Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Smyrna and where hazard mitigation has been integrated.

Table 9.31-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local, State		Yes	NA	NA
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the “2015 I-Codes”), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No		Local	-	No		
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken “in accord with a well-considered plan” ¹¹ or “in accordance with a comprehensive plan.” ¹² Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general “comprehensive plan” requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	No		Local	-	No		
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management	Yes	Title 6, Ch. X,17-7,8,70	State, Federal	NYSDEC permits required for any major construction projects	Yes		
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery	Yes		County	Chenango County EMS	No		
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes		
Comment: In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Growth Management	No		Local	Local Planning Board	No		
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							
Site Plan Review	No	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a	Local	Local Planning Board	No		
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State		Yes	NA	NA
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	Adopted 5/1987, Amended 9/14/2010	Federal, State, Local	Administered by County Code Official under an MOU with Village	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	NA
<p>Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> Local Law No. 1, Flood Damage Prevention, 2010, enacted by the Village Board of the Village of Smyrna. The Village Board of the Village of Smyrna finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Village of Smyrna and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: <ol style="list-style-type: none"> (1)regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program The areas of special flood hazard for the Village of Smyrna, Community Number 361378, are identified and defined on the documents prepared by the Federal Emergency Management Agency, namely, Flood Insurance Rate Map Panel Numbers: 36017C0080E 36017C0090E, whose effective date is, November 26, 2010. A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; <ol style="list-style-type: none"> (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. 							
Municipal Separate Storm Sewer System (MS4)	Yes	EPA Phase II Stormwater Rule	Federal		Yes		



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes	NA	NA
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change	Yes or No	NYS Executive Law, Article 75	Local		Yes		
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	Yes		Local	Chenango County EMS	No		
Comment:							
Disaster Reconstruction Ordinance	Yes or No		Local		No		
Comment:							
Other	Yes						
Comment: <ul style="list-style-type: none"> • Junkyard Ordinance. Adopted 1987 • Mobile Home Ordinance. Adopted 1983 • Sanitary Code. Adopted 1996 • Animal Control Ordinance. Adopted 1975 							
Planning Documents							
Comprehensive Plan	No	General City Law section 28a(3)(a); Town Law section 272-a(2)(a); Village Law section 7-722(2)(a)	Local		No		
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	Yes	General Municipal Law Section 99-g.	Local		No		
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	Yes or No	-	Local		No		
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	No	-	Local		No		
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Stormwater Plan	Yes		Local	NYSDEC	No		
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	Yes or No	NYS Constitution - Article 9; Statute of Local Governments. Section 10 (7)	Local		Yes		
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	Yes or No	-	Local		No		
Comment:							
Habitat Conservation Plan	No	-	Local		No		
Comment: Laws related to habitat protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local		No		
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	N/A	N/A
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	Yes or No	-	Local	-	No		
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	Yes or No	-	Local	-	No		
Comment:							
Transportation Plan	Yes or No	-	Local	-	No		
Comment:							
Agriculture Plan	Yes or No	NYCRR Part 390 Agricultural and Farmland Protection -	Local	?	Yes		
Comment:							
Other	No						
Comment:							
Response/Recovery Planning							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Smyrna Fire District	Yes		
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes or No	-	Local	Local OEM	Yes		
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	Yes		Local, County	Chenango County EMS, Smyrna Fire Dept.	No		
Comment:							
Continuity of Operations Plan	Yes or No	-	Local	-	No		
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other	Yes						
Comment: • Emergency Response Plan							

Table 9.31-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	
Permits are tracked by hazard area. For example, floodplain development permits.	
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Smyrna.



Table 9.31-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board		
Mitigation Planning Committee		
Environmental Board/Commission		
Open Space Board/Committee		
Economic Development Commission/Committee		
Warning Systems / Services (reverse 911, outdoor warning signals)		
Maintenance programs to reduce risk		
Mutual aid agreements		
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage and support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract
Professionals trained in conducting damage assessments		
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Department
Scientist familiar with natural hazards	Yes	Chenango County Soil & Water Department
NFIP Floodplain Administrator (FPA)	Yes	MOU with Chenango County NFIP Floodplain Administrator
Surveyor(s)	Yes	County Highway Department when available manpower
Emergency Manager	Yes	Chenango County Emergency Management Office and Smyrna Fire District
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer		
Other		

Fiscal Capability

The table below summarizes financial resources available to the Village of Smyrna.

Table 9.31-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes-public water/sewer
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No



Financial Resources	Accessible or Eligible to Use (Yes/No)
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	
Other	

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Smyrna.

Table 9.31-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	
Personnel skilled or trained in website development?	
Hazard mitigation information available on your website; if yes, describe	
Social media for hazard mitigation education and outreach; if yes, briefly describe.	
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	
Warning systems for hazard events; if yes, briefly describe.	
Natural disaster/safety programs in place for schools; if yes, briefly describe.	
Other	

Community Classifications

The table below summarizes classifications for community programs available to the Village of Smyrna.

Table 9.31-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)			
Public Protection (ISO Fire Protection Classes 1 to 10)			
NYSDEC Climate Smart Community			
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
Other			

Note:

N/A Not applicable
NP Not participating
- Unavailable



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 2016). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.31-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	Medium
Drought	Medium
Extreme Temperatures	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Natural Gas	Medium
Severe Storm	High
Severe Winter Storm	High
Wildfire	Medium

*High Capacity exists and is in use

Medium Capacity may exist; but is not used or could use some improvement

Low Capacity does not exist or could use substantial improvement

Unsure Not enough information is known to assign a rating

National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fox, Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Smyrna.

Table 9.31-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Village of Smyrna	0	0	\$0	0	-	0

Source: FEMA 2019

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL Repetitive Loss; SRL Severe Repetitive Loss

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.



Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Village of Smyrna has not completed any Community Assistance Visits (CAV).

Regulatory

The Village of Smyrna Flood Damage Prevention Ordinance (FDPO) was last updated on September 14, 2010. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- **Infrastructure Protection:** Improve and upgrade ditching along North Hill to eliminate/reduce potential drainage problems.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

NY-80 runs through the middle of town and should be used for evacuations.

Sheltering

The Village of Smyrna has not designated emergency shelters but will evaluate the use of the municipal hall to serve as a warming/cooling center in the event of power outages. In the event that sheltering is needed shelters will be determined at the time of an emergency, in accordance with the County CEMP.

Temporary Housing

The Village of Smyrna has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Village will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

While the Village of Smyrna did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Village can utilize this analysis to identify potential locations.



9.31.5 Hazard Event History Specific to the Village of Smyrna

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Village of Smyrna's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.31-11 provides details regarding municipal-specific loss and damages the Village experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.31-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

N/A Not applicable

9.31.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the Village of Smyrna's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those



that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.31-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None identified at this time				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Village of Smyrna. The Village of Smyrna has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Village of Smyrna indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.31-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Low	Low	Medium	Medium	High	Medium	Low

Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Village residents have concern of potential major property damage to the village if excessive runoff/drainage from Reservoir Hill area on the north side of entire village.

Specific areas of concern based on resident response to the Chenango County Hazard Mitigation Citizen survey include:





- No Response

9.31.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2015 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.31-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
NEW 1	Address flooding of property due to runoff/drainage from Reservoir Hill area on North side of Village.	Flood, Severe Storm	Village Highway Department, Chenango County Soil/Water; NYSDOT; NYSDEC	Address flooding of property due to runoff/drainage from Reservoir Hill area on North side of Village.		Level of Protection		
						Damages Avoided; Evidence of Success		
(NEW) 2	Improve and upgrade ditching along North Hill to eliminate/reduce potential drainage problems.	Flood, Severe Storm	Village Highway Department, Chenango County Soil/Water; NYSDOT; NYSDEC	Improve and upgrade ditching along North Hill to eliminate/reduce potential drainage problems.		Cost		
						Level of Protection		
						Damages Avoided; Evidence of Success		
(Former VSM-2, 3)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none"> Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification. Public education and awareness program for floodplain residents. Updates to NFIP floodplain mapping. Promotion of "Firewise" programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations. 							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above		Cost		
						Level of Protection		
						Damages Avoided; Evidence of Success		



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Smyrna has not identified any mitigation projects or initiatives apart from those included in the 2015 HMP.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Smyrna worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (<https://community.fema.gov/ProtectiveActions/s/>).

Table 9.31-15 summarizes the comprehensive-range of specific mitigation initiatives the Village of Smyrna would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives 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 municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.31-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.31-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				Problem:										
				Solution:										
				Problem:										
				Solution:										
				Problem:										
				Solution:										
				Problem:										
				Solution:										
				Problem:										
				Solution:										

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
EHP	Environmental Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- 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 manmade structures to reduce the impact of hazards.



- *Natural Systems Protection (NSP)* – These are actions that minimize damage and losses, and also 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

CRS Category:

- *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 also 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 9.31-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.31.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.31-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood										
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm										
Severe Winter Storm										
Wildfire										

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.31.9 Staff and Local Stakeholder Involvement in Annex Development

The Village of Smyrna followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Village departments, including the Village Clerk and Mayor's Office. The Village Clerk represented the community on the Chenango County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements 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.

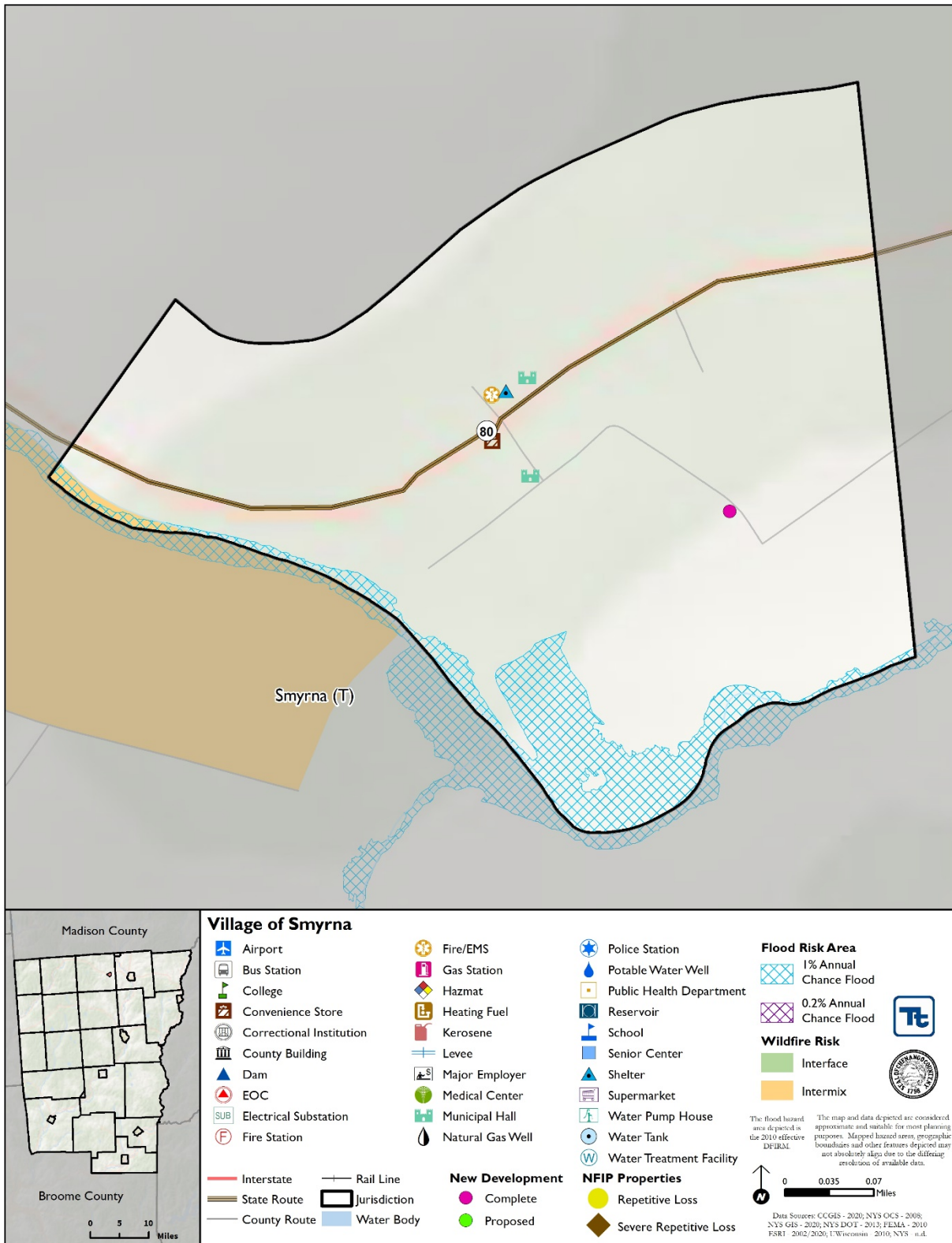
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.31.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Village of Smyrna that illustrates the probable areas impacted within the municipality. This map is based on the best available data at the time of the preparation of this plan, and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Smyrna has significant exposure. The map is illustrated below.



Figure 9.31-1. Village of Smyrna Hazard Area Extent and Location Map





Action Worksheet			
Project Name:			
Project Number:			
Risk / Vulnerability			
Hazard(s) of Concern:			
Description of the Problem:			
Action or Project Intended for Implementation			
Description of the Solution:			
Is this project related to a Critical Facility?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Is the critical facility located in the 1% annual chance flood area?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:		Estimated Benefits (losses avoided):	
Useful Life:		Goals Met:	
Estimated Cost:		Mitigation Action Type:	
Plan for Implementation			
Prioritization:		Desired Timeframe for Implementation:	
Estimated Time Required for Project Implementation:		Potential Funding Sources:	
Responsible Organization:		Local Planning Mechanisms to be Used in Implementation if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:		
Project Number:		
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety		
Property Protection		
Cost-Effectiveness		
Technical		
Political		
Legal		
Fiscal		
Environmental		
Social		
Administrative		
Multi-Hazard		
Timeline		
Agency Champion		
Other Community Objectives		
Total		
Priority (High/Med/Low)		



Action Worksheet			
Project Name:			
Project Number:			
Risk / Vulnerability			
Hazard(s) of Concern:			
Description of the Problem:			
Action or Project Intended for Implementation			
Description of the Solution:			
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:		Estimated Benefits (losses avoided):	
Useful Life:		Goals Met:	
Estimated Cost:		Mitigation Action Type:	
Plan for Implementation			
Prioritization:		Desired Timeframe for Implementation:	
Estimated Time Required for Project Implementation:		Potential Funding Sources:	
Responsible Organization:		Local Planning Mechanisms to be Used in Implementation if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:		
Project Number:		
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety		
Property Protection		
Cost-Effectiveness		
Technical		
Political		
Legal		
Fiscal		
Environmental		
Social		
Administrative		
Multi-Hazard		
Timeline		
Agency Champion		
Other Community Objectives		
Total		
Priority (High/Med/Low)		