



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"> 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; 							



	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 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	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
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			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.				

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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	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. 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.	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	Problem: The Bainbridge Electrical Substation is located within the 1% SFHA. 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	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.

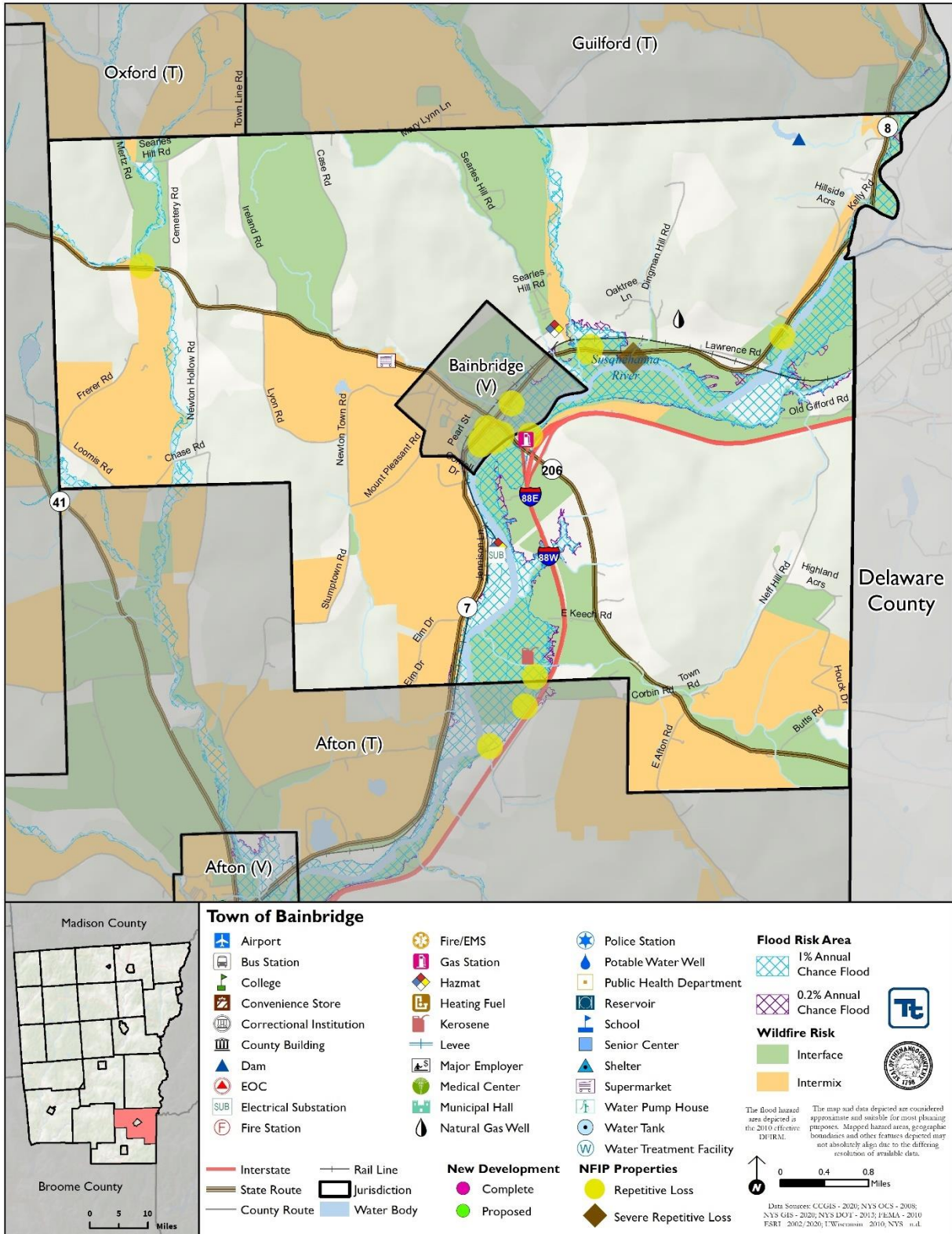
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

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	