MUNICIPAL ANNEX | Town of Elbridge

Total Population (2010 Census)
3,496

Total Land (square miles)
36.1

Total Number of Buildings
3,020

Percent of Buildings in Regulatory Floodplain
5%

Number of National Flood Insurance Program (NFIP) Policies and Percent in Regulatory Floodplain
19 (63%)

Number of Repetitive Loss (RL) Properties
2

Total Agricultural Land (acres)
11,875.7

Harmful Algal Bloom Impacted Waterbody
No

Proposed Project Types
Structure and Infrastructure, Education and Awareness Programs, Natural Systems Protection

Mitigation Focus
Multi-Hazard

9.9 TOWN OF ELBRIDGE

This section presents the jurisdictional annex for the Town of Elbridge. 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 Elbridge'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 Elbridge's hazard mitigation plan primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
Name: James White Title: Elbridge Town Highway Superintendent Phone Number: 315-246-7256 Address: PO Box 568 Jordan, NY 13080 Email: highwaysupt@townofelbridge.com	Name: Floyd Duger Title: Elbridge Town Councilman Phone Number: 315-569-2978 Address: PO Box 568 Jordan, NY 13080 Email: fduger@aol.com
Floodplain Administrator	
Name: James White Title: Elbridge Town Highway Superintendent Phone Number: 315-246-7256 Address: PO Box 568 Jordan, NY 13080 Email: highwaysupt@townofelbridge.com	

9.9.2 Municipal Profile

The Town of Elbridge lies along the western border of Onondaga County in western New York State. The Erie Canal/Seneca River system forms the north border for the town. Cross Lake sits on the northeast corner of the town. The Town of Elbridge has a total area of 38.8 square miles. The Erie Canal/Seneca River system forms the north border for the town. The Town of Elbridge is bordered to the north by the Towns of Lysander and Van Buren, to the south by the Town of Skaneateles, to the east by the Town of Camillus, and to the west by Cayuga County. The New York State Thruway (Interstate 90) crosses the north part of the town. New York State Route 317 is a north-south highway in Elbridge. New York State Route 5, in the south, and New York State Route 31, in the north, are east-west highways in the town. New York State Route 321 crosses the southeast part of Elbridge.

The Village of Elbridge is located in the town at the junction of NY-5 and NY-317. The Village of Jordan is also located in the town and is found at the junction of NY-31 and NY-317. Refer to Section 9.10 (Village of Elbridge) and Section 9.15 (Village of Jordan) for their individual annexes. There are several communities located within the town: Halfway (hamlet), Lairds Corners (hamlet), Memphis (hamlet), Peru (hamlet) and Skaneateles Junction (hamlet). The estimated 2016 population was 3,383, which is a 3.2 percent decrease in population from 2010 (3,496 persons).

Data from the 2016 U.S. Census American Community Survey estimates that 2.5 percent of the town population is five years of age or younger, and 16.6 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.

History and Cultural Resources

The Town of Elbridge was founded The Town of Elbridge was first settled by the English in 1793, when Josiah Buck, a surveyor, who originally surveyed the land for the State of New York in 1791, and Captain William Stevens, a soldier of the Revolution arrived in what is now the Town of Elbridge. On March 29, 1829, 37 lots were broken from the Town of Camillus and the Town of Elbridge was created. The town was named after Elbridge Gerry, a friend of Captain Stevens. Elbridge Gerry was a member of the Boston Tea Party with Stevens, a Signer of the Declaration of Independence and Vice President of the United States in 1813-1814. He died in office on the way to the Senate in 1814.

The settlement of Jordan in the northwest section of the town became incorporated on May 2, 1835. The Erie Canal was built through the Village of Jordan in 1825 and immediately the village began to grow and prosper. Later, the main line of the railroad that traversed New York State was built in Jordan. Jordan soon became the center of trade and manufacturing in the Town of Elbridge - outgrowing the population of Elbridge. Today Jordan remains the larger of the two villages.

By the early 1900's, the industry in the two villages started moving into Syracuse and many went out of business. There was a need for capital expansion and there were no banks in the area to support this growth. In 1912, the Erie Canal was closed and moved to the new Barge Canal which is located in the Seneca River and Cross Lake. The use of the railroad also disappeared as a popular means of shipping in the 1950's. The NYS Thruway was soon built, but there was no exit created for the Town of Elbridge-industry came to a standstill. Today there still exists a few viable industries in the town: OWI Wire Mill, Bennett Bolt Works, Northeastern Electronics and Tessy Plastics Corporation.

Growth/Development Trends

Table 9.9-1 summarizes major residential/commercial development and any known or anticipated major residential/commercial development and major infrastructure development as of July 2018 that is likely to occur within the municipality in the next five years. Refer to the map in Figure 9.9-1 of this annex which illustrates the hazard areas along with the location of potential new development.

Table 9.9-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2013 to present					
Tessy Plastics	Comm	2	488 Rte 5 West	NEHRP: D&E; Carbonate Bedrock	Completed
Known or Anticipated Development in the Next Five (5) Years					
Northeast electronics	Comm	1	102 Rte 5W	NEHRP: D&E	Planning

** Only location-specific hazard zones or vulnerabilities identified.*

9.9.3 Hazard Event History Specific to the Town of Elbridge

Onondaga County has a history of natural hazard events as detailed in Volume I, Section 5.0 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 Elbridge's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Onondaga County. Table 9.9-2 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 9.9-2. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	Onondaga County Designated?	Summary of Event	Municipal Summary of Damages and Losses
April – May 2011	Severe Storms, Flooding, Tornadoes, and Straight-Line Winds (FEMA-DR-1993)	Yes	A slow moving warm front pushed northward across central New York late in the afternoon on April 25th. Severe weather developed, and in addition to reports of severe wind damage and hail, plenty of wind shear in the vicinity of the warm front allowed for a few super-cell thunderstorms and tornadoes to develop. In addition, areas of heavy rain caused significant flash flooding in several locations of central New York. On May 26, a deep upper level low pressure system shifted east from the mid-Mississippi Valley region through the afternoon and evening, allowing numerous showers and thunderstorms to develop. Many reports of large hail and damaging winds occurred in central New York.	Although the county was impacted, the town did not sustain damages.
June 30-July 1, 2015	Flash Flood	No	An unseasonably strong storm system tapping into above normal moisture sources across the Great Lakes and Northeast triggered multiple heavy rain producing thunderstorms across the region. Localized torrential rainfall in central New York caused serious urban flash flooding in the Syracuse, NY metropolitan area. Damages are estimated between three and five million dollars.	Although the county was impacted, the town did not sustain damages.
July 1, 2017	Flash Flood	No	A tropical moisture laden air mass produced numerous showers and thunderstorms which traveled repeatedly over the same areas of the Finger Lakes Region and Upper Mohawk Valley. Widespread flash and urban flooding developed in portions of Cayuga, Onondaga, Madison and Oneida counties. Hardest hit areas were the villages and towns of Moravia, Chittenango, Oneida, and Utica to name a few. Total rainfall amounts along a narrow corridor from Moravia to Utica generally ranged from 2.5 to 5 inches, most of which fell in less than 1 to 2 hours. Total damages from this event range from $10-$15 million dollars countywide.	Mudslides on Kester Road. Road closure. Require cleanup and shoulder repair.
Spring of 2017 and 2018,	Seneca River Flooding	TBD	Snowmelt during event resulted in periods of flooding.	Seneca River flooding resulted in debris and damage to private properties.

Notes:

EM Emergency Declaration (FEMA)

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

9.9.4 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 hazards of greatest concern and risk to the Town of Elbridge. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk 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 town or village may have differing degrees of risk exposure and vulnerability compared to Onondaga 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 Elbridge. The Town of Elbridge 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. The town changed the rankings of Harmful Algal Bloom and Invasive Species to a high ranking after discussing the impact these two hazards have on the town.

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

- The town confirmed that flood is a medium hazard.
- The town changed harmful algal bloom and invasive species from low to high risk hazards due to continuing impacts and risk for increased impact in the future.

Table 9.9-3. Town of Elbridge Hazard Ranking Input

HAZARD	Drought	Earthquake	Flood	Geologic	Harmful Algal Bloom	Invasive Species	Severe Storm	Severe Winter Storm
RELATIVE RISK FACTOR	High	High	Medium	Low	High	High	High	High

Note: The scale is based on the following hazard rankings as established in Section 5.3.
High = Total hazard priority risk ranking score of 5 and above
Medium = Total hazard priority risk ranking of 3.9 – 4.9
Low = Total hazard risk ranking below 3.8
*The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Critical Facilities Flood Risk

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 event, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYSDHSES 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 9.9-4. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event		Addressed by Proposed Action
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	
None identified						

Source: FEMA 2016, SOPA 2018

Identified Issues

The Town of Elbridge identified the following problems for their community:

- Eno Point on Seneca River/ Cross Lake is prone to log and ice jams, which can cause flooding.
- Case/Rodak/Schant Road experience flooding involving the Creek and Stormwater issues.
- The town has large populations of ash trees that are vulnerable to Emerald Ash Borer. Other areas have been heavily impacted. Other invasive species such as water chestnut are also a concern.
- Hedgerow removal has increased the occurrence of mudslides and drifting snow in agricultural areas.
- Past HAB events have required water advisories but town lacks system to efficiently notify residents.
- State testing for HAB's is limited in frequency and areas sampled.

9.9.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of mitigation planning into existing and future planning mechanisms

Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Elbridge.

Table 9.9-5. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Comprehensive Plan	No	-	-	-
Capital Improvements Plan	No	-	-	-
Floodplain Management / Basin Plan	Yes	Local	Planning	LL#1 1982
Stormwater Management Plan	Yes	Local	Planning	LL#1 1982
Open Space Plan	Yes			Open Space Plan
Stream Corridor Management Plan	No	-	-	-
Watershed Management or Protection Plan	No	-	-	-
Economic Development Plan	No	-	-	
Comprehensive Emergency Management Plan	Yes	Local	Planning	Not adopted
Emergency Operation Plan	Yes	Local	Planning	NIMS 2007
Evacuation Plan	No	-	-	-
Post-Disaster Recovery Plan	Yes	Local	Planning	NIMS 2007
Transportation Plan	No	-	-	-
Strategic Recovery Planning Report	No	-	-	-
Climate Adaptation Plan	No	-	-	-
Resilience Plan	No	-	-	-
Other Plans:	No	-	-	-
Regulatory Capability				
Building Code	Yes	State & Local	Code Enforcement	LL#3 6/6/07
Zoning Ordinance	Yes	Local	Code Enforcement	October 2011
Subdivision Ordinance	Yes	Local	Code Enforcement	Elbridge Municipal Code 1983
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Code Enforcement	2016
NFIP: Cumulative Substantial Damages	No	-	-	-
NFIP: Freeboard	Yes	State, Local	Code Enforcement	State mandated BFE+2 for all construction, both residential and non-residential
Growth Management Ordinances	No	-	-	-
Site Plan Review Requirements	Yes	Local	Code Enforcement	Oct 2011
Stormwater Management Ordinance	Yes	Local	Code Enforcement	Oct 2011
Municipal Separate Storm Sewer System (MS4)	Yes	Local	Code Enforcement	NY Rte 5 West

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Natural Hazard Ordinance	No	-	-	-
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	NYS Department of State, Real Estate Agent	NYS mandate, Property Condition Disclosure Act, NY Code - Article 14 §460-467
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	No	-	-	-

Administrative and Technical Capability

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

Table 9.9-6. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	Environmental Board
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Maintenance programs to reduce risk	Yes	Highway Dept
Mutual aid agreements	Yes	Fire depts- Jordan FD Elbridge FD Mottville FD
Technical/Staffing Capability		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Contractual
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	No	Contractual
Planners or engineers with an understanding of natural hazards	Yes	-
NFIP Floodplain Administrator (FPA)	No	Codes Officer
Surveyor(s)	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	-
Scientist familiar with natural hazards	Yes	-
Warning systems/services	Yes	-
Emergency Manager	No	-
Grant writer(s)	Yes	Contractual or some staff
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-

Fiscal Capability

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

Table 9.9-7. 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
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	Yes
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	No

Community Classifications

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

Table 9.9-8. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	Elbridge: 3.5 Jordan: 3	
NYSDEC Climate Smart Community	No	-	-
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
Natural disaster/safety programs in/for schools	Yes	-	-
Organizations with mitigation focus (advocacy group, non-government)	No	-	-
Public education program/outreach (through website, social media)	No	-	-
Public-private partnership initiatives addressing disaster-related issues	No		
Other	N/A		

Note:

N/A *Not applicable*

NP *Not participating*

- *Unavailable*

The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule (https://www.isomitigation.com/bcegs/)
- The ISO Mitigation online ISO's Public Protection website at https://www.isomitigation.com/ppc/
- New York State Climate Smart Communities (http://www.dec.ny.gov/energy/56876.html)
- The National Weather Service Storm Ready website at https://www.weather.gov/stormready/communities
- The National Firewise Communities website at http://firewise.org/

Self-Assessment of Capability

The table below provides an approximate measure of the Town of Elbridge's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.9-9. Self-Assessment Capability for the Municipality

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)	Moderate	High
Planning and regulatory capability		X	
Administrative and technical capability		X	
Fiscal capability	X – low funding		
Community political capability		X	
Community resiliency capability		X	
Capability to integrate mitigation into municipal processes and activities			X

National Flood Insurance Program

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

NFIP Floodplain Administrator (FPA)

Jim White, Highway Department

National Flood Insurance Program (NFIP) Summary

The Town of Elbridge maintains lists/inventories of properties that have been flood damaged, but does not identify property owners who are interested in mitigation. The town does not make substantial damage estimates.

The FPA noted that no properties have recently been flooded and no properties are interested in mitigation at this time. The following table summarizes the NFIP statistics for the Town of Elbridge.

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 Elbridge	19	23	$125,267	2	0	12

Source: FEMA Region 2 2018.

(1) Policies, claims, RL, and SRL statistics provided by FEMA Region 2, and are current as of June 30, 2018. Total number of RL properties does not include SRL properties. Number of claims represents claims closed by July 31, 2018.

(2) Total building and content losses from the claims file provided by FEMA Region 2.

(3) Number of policies inside and outside of flood zones is based on latitude and longitude coordinates provided by FEMA Region 2 in the policy file. FEMA noted that for a property with more than one entry, more than one policy may have been in force or more than one Geographic Information System (GIS) specification was possible. Number of policies and claims, and claims total, exclude properties outside Onondaga County boundary, based on provided latitude and longitude coordinates.

RL Repetitive Loss

SRL Severe Repetitive Loss

Resources

The FPA is the sole person responsible for floodplain administration. NFIP administration services and functions include permit review, inspections, damage assessments, record-keeping, etc. In the past the Codes office has hosted flood insurance seminars. The FPA noted that they do not have access to resources to determine possible future flooding conditions from climate change. However, they feel adequately supported and do not feel there are any barriers to running an effective floodplain management program. The FPA noted they would consider attending continuing education and/or certification training on floodplain management if it were offered in the county for all local floodplain administrators.

The town works to conduct mitigation workshops with the support of the county, NYSOEM, and FEMA targeting flood vulnerable properties and Repetitive Loss/Severe Repetitive Loss (RL/SRL) properties to address the specific interests and concerns which include:

- Gaining a better understanding of the available mitigation grant programs, including the procedural requirements of a RL/SRL community under this program;
- Understanding how flood vulnerable and RL/SRL communities can enhance their efforts to encourage and support property owners to mitigate their properties,
- Understanding how flood vulnerable and RL/SRL communities can best leverage existing data, information and studies (e.g. NFIP data) to target specific properties for mitigation, and
- Learning what resources are available to conduct/complete Repetitive Loss Area Analyses, and gather critical data (e.g. structure elevations) to screen and move properties through the applicable mitigation grant programs.

Compliance History

The Town of Elbridge is in good-standing in the NFIP. According to information provided by NYSDEC, the most recent Community Assistance Visit (CAV) was conducted on August 12, 2008. However, according to the FPA, the most recent compliance audit [e.g. Community Assistance Visit (CAV)] was in 2014.

Regulatory

The Flood Damage Prevention Ordinance for the Town of Elbridge meets FEMA and State minimum standards. The FPA noted that there are other local ordinances, plans or programs (e.g. site plan review) that support floodplain management and meeting the NFIP requirements such as the Zoning Board. The FPA stated that the town has not considered joining the Community Rating System (CRS) program to reduce flood insurance premiums for their insured but would attend a CRS seminar if offered locally.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

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, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures, which is also indicated below.

Planning

Existing Integration

General Plan: The 1991 Town of Elbridge General Plan is guided by the mission to enhance the town's quality of life through the conservation of agricultural and natural areas important to its rural character while accommodating appropriate future growth. The Plan provides specific goals and objectives that pertain directly to hazard mitigation, which include conserving, protecting and enhancing the viability of prime agricultural areas and operations and protecting and conserving sensitive natural areas. Specifically, the General Plan aims to protect and conserve important ground and surface water resources such as trout streams, wetlands and associated wildlife habitat. A relevant recommendation is to develop conservation zoning overlays as a basis for protecting and conserving sensitive natural areas such as floodplains, slopes, and wetlands.

Stormwater Management Plan: The Town of Elbridge is an MS4 Regulated Community and is developing a formal Stormwater Management Plan which will include projects/actions/initiatives to reduce the volume of stormwater, or otherwise mitigate stormwater flooding.

Onondaga County Hazard Mitigation Plan: The Town of Elbridge supports the implementation, monitoring, maintenance, and updating of this Plan. The town supports county-wide initiatives identified in Section 9.1 of the county annex.

The Town of Elbridge has a Re-Development Plan, Growth Plan, and Open Space Plan which work to clean stormwater runoff as it pertains to development. The town has a Continuity of Operations/Continuity of Government (COOP/COG) plan(s). The town has a Comprehensive Emergency Management Plan and Post-Disaster Recovery Plan but they do not refer to the Hazard Mitigation Plan. The town does not have a resilience plan/strategy or Climate Adaptation Plan/strategy.

Opportunities for Future Integration

Updates to the planning documents or the creation of new plans could include information on natural hazard risk and resilience and refer to the countywide Hazard Mitigation Plan.

Regulatory and Enforcement (Ordinances)

Existing Integration

The town has multiple ordinances pertaining to the mitigation of hazards. These ordinances include the Establishment of Boards (see Operational and Administration below), Fire Prevention Ordinance, Flood Damage Prevention Ordinance, Environmental Quality Review Ordinance, Stormwater Management Ordinance, Zoning Ordinance, Subdivision of Land Ordinance. The town also adheres to the New York State Fire Prevention and Building Code. The municipal Code and ordinances are available at the town's municipal office and more information can be found on the town website (http://www.townofelbridge.com/).

The Town of Elbridge's municipal zoning, subdivision regulations, and site plan review process consider natural hazard risk and require developers to take additonal actions to mitigate natural hazard risk. The Planning Board and ZBA are provided with Ag District maps, flood maps, soil & water, FEMA 2016 flood maps, and DEC/Army corps wetland maps to guide their decisions with respect to natural hazard risk management.

Zoning Ordinance: The Town of Elbridge's Zoning Ordinance (Ch. 30), creates general standards that provide regulations for development and establishes zoning districts including an Agricultural Zoning District. The ordinance provides mapping requirements for development within the areas susceptible to flooding or erosion in the Planned Industrial District, Planned Unit Development District, and the Planned Commercial Districts.

Opportunities for Future Integration

Ordinances for the Town of Elbridge could include information regarding natural hazards and resilience.

Operational and Administration

Existing Integration

Planning Board: The Town of Elbridge's Planning Board reviews site plans on any newly proposed land use activity in the town and considers such plans for approval in accordance with local law. The Planning Board meets the 2nd Wednesday of each month at 7:00PM in the Town Hall.

Zoning Board of Appeals: The Town of Elbridge's Zoning Board of Appeals considers and decides appeals of decisions relating to zoning matters. Also, issues special permits as appropriate, and grants or denies variances in accordance with Town Law. The Zoning Board of Appeals meets the 3rd Wednesday of each month a 7:00PM in the Town Hall.

Environmental Commission: The Environmental Commission for the Town of Elbridge meets the 4th Tuesday of every month at 6:30PM at the Town Hall.

Mutual Aid Agreements: The Town of Elbridge works to create/enhance/ maintain mutual aid agreements with neighboring communities.

Stream Team Program: The Town of Elbridge supports/participates in the Stream Team program offered by the Onondaga County SWCD, to assist in the removal of debris, log jams, etc. in flood vulnerable stream sections.

The Town of Elbridge does not have a municipal planner or contract planning firm. Stormwater Management functions are performed by a contractor (Barton & Logudice Engineering). NFIP Floodplain Management functions are performed by the Town Board & Zoning Board of Appeals. The town uses a contractor (arton & Logudice Engineering) that has experience with developing Benefit-Cost Analysis. The town does not have staff or use a contractor who can perform Substantial Damage Estimates. Town staff have experience in preparing

grant applications for mitigation projects. Staff in the Highway Department have job descriptions that involve natural hazard risk. Town staff receive training and continuing professional education which supports natural hazard risk reduction and staff participate in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities. The town has other hazard management programs in place such as vegetation management with the Villages of Jordan and Elbridge DPW Depts and the JECSD Facilities Dept.

Opportunities for Future Integration

Staff could continue to receive training regarding natural hazard mitigation.

Funding

Existing Integration

The Town of Elbridge has a line item for mitigation projects/activities in the municipal budget (Highway Budget). The town's Capital Improvements Budget includes budget for mitgiation-related projects (water infrastructure expenses/emergencies). The town has previosuly pursued and been awarded grant funds for bridges and drainage projects. The town currently does not have any other mechanisms to fiscally support hazard mitgation projects.

Pre-disaster mitigation funds will be available upon FEMA approval of this plan, along with other funding available through the state and federal sources, such as the NYS Department of Conservation (Climate Smart Communities Grants, Water Quality Improvements Program, Trees for Tribes), NYS Environmental Facilities Corporation (Wastewater Infrastructure Engineering Planning, Clean Water Revolving Loan Fund, Green Innovation Grant Program), New York State Energy Research and Development Authority (Clean Energy Communities Program), and Empire State Development.

Opportunities for Future Integration

The town could apply for additional grant funding to improve infrastructure such as waterlines and possible sewer districts.

Education and Outreach

Existing Integration

The Town of Elbridge uses the municipal website (http://www.townofelbridge.com/) and media releases on the towns's Twitter and Instagram accounts to conduct public outreach to inform citizens on natural hazards. The town's website posts information regarding upcoming community events and important municipal decisions. The website provides information related to safety and hazard mitigation including local emergency response contact information, current project information, Storm Water regulations, and links to related ordinances (see Regulatory and Enforcement).

The town conducts and facilitates community and public education and outreach for residents and businesses to include, but is not be limited to, the following to promote and effect natural hazard risk reduction:

- Provide and maintain links to the Onondaga County HMP website, and regularly post notices on the municipal homepage referencing the Onondaga County HMP webpages.
- Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation.

- Use the town email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures.
- Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.

Opportunities for Future Integration

The town could conduct occasional information Q&A meetings with DEC, local officials, and local businesses.

Sheltering, Evacuation, and Temporary Housing

Temporary housing, evacuation routes, and sheltering measures must 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.

Temporary and Permanent Housing

The Town of Elbridge has identified the following potential sites for the placement of temporary housing for residents displaced by a disaster:

- Jordan Elbridge High School: 5271 Hamilton Road. The capacity of the High School is unknown. The facility requires state education inspections.
- Jordan Fire House: 1 North Hamilton Street. The capacity of the Fire House is 96. The facility requires yearly codes inspections.

The town has identified potential sites suitable for relocating houses of the floodplain and/or building new homes once properties in the floodplain are acquired.

- Cobblestone Subdivision: Sandbank Road. The Subdivision has capacity of multiple homes which would require normal local code inspections.

To accommodate longer term housing needs of permanently displaced residents, there is an existing supply of vacant housing units within the county which may be able to satisfy and absorb those housing needs. The county also has ample buildable land availability throughout its communities to satisfy construction of new housing units if needed, as mapped in Section 4, figure 4-20 in Volume I of this plan. Of note, given the nature of the hazards of concern to Onondaga County, the extent of housing need is also not likely to exceed currently available housing stock for all but the most extreme and widespread hazard events.

Evacuation and Sheltering Needs

The Town of Elbridge has designated the following emergency shelters:

- JE High School: 5721 Hamilton Road. The High School's capacity is unknown. The School cannot accommodate pets but is ADA compliant and has backup power.
- Jordan Fire Department: 1 North Hamilton Street. The Fire Department has a capacity of 96. The facility is ADA compliant, has backup power, and can provide general medical services.

The Town of Elbridge has designated the following evacuation routes:

- Thorough fares Hamilton Road and Jordan Road North and South
- State Highways Route 5 and Route 31 and Route 90 Thruway if needed East to West

Per the County Emergency Management Plan, in the event of a hazard occurrence, the Department of Emergency Management is tasked with coordinating evacuation procedures with the Sheriff's Department, the On-Scene Commander, the Transportation Coordinator, the ARC, hospitals, special facilities, the fire service and the Health Department. The Sheriff's Department is responsible for implementing traffic control procedures including coordination of vehicular traffic and protection of resources, facilities and services in the affected areas. As noted in Section 4, Figure 4-19 in Volume I of this plan, the primary roads and highways are the evacuation routes for Onondaga County; the county is fortunate to have a variety of well-connected arterial and collector roadways to provide a variety of routing options during times of large-scale evacuation.

The American Red Cross (ARC) has primary contractual responsibility to provide sheltering, including short term housing, for Onondaga County individuals and families during an emergency occurring in Onondaga County. Services of the ARC include emergency sheltering needs, mass care, feeding, information and referral, and special population assistance. A confidential shelters list is maintained by the Department of Emergency Management and the ARC which identifies capacity for 15,000+ residents across Onondaga County. The ARC is responsible for maintaining shelter and temporary housing agreements with selected facilities.

9.9.6 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 2013 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 9.9-11. Status of Previous Mitigation Actions

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TEL-1a	Where appropriate, support retrofitting of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for retrofitting based on cost-effectiveness versus relocation. Where retrofitting is determined to be a viable option, consider implementation of that action based on available funding.		River/ stream embankments	Highway	In Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2019 HMP 2. 3.
TEL-1b	Where appropriate, support purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for relocation based on cost-effectiveness versus retrofitting. Where relocation is determined to be a viable option, consider implementation of that action based on available funding.		Stream cleanouts	Highway	In Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2019 HMP 2. 3.
TEL-2	Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction: • Provide and maintain links to the Onondaga County HMP website, and regularly post notices on the municipal homepage referencing the Onondaga County HMP webpages. • Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation. • Use the village email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures. • Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding. Municipal outreach activities to be supported by the county, as identified at county initiative OC-0.							

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
					Ongoing capability	Cost		1. Discontinue
						Level of Protection		2.
						Damages Avoided; Evidence of Success		3. Ongoing capability
TEL-3	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0				Ongoing Capability	Cost		1. Discontinue
						Level of Protection		2.
						Damages Avoided; Evidence of Success		3. Ongoing capability
TEL-4	Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further meet and/or exceed the minimum NFIP standards and criteria through the following NFIP-related continued compliance actions identified as Initiatives TEL-1a, 1b, 8 and 10.				Ongoing Capability	Cost		1. Discontinue
						Level of Protection		2.
						Damages Avoided; Evidence of Success		3. Ongoing capability
TEL-5	Continue to develop, enhance, and implement existing emergency plans.	ongoing			Ongoing Capability	Cost		1. Discontinue
						Level of Protection		2.
						Damages Avoided; Evidence of Success		3. Ongoing capability
TEL-6		\				Cost		1. Discontinue

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Create/enhance/ maintain mutual aid agreements with neighboring communities.				Ongoing Capability	Level of Protection Damages Avoided; Evidence of Success		2. 3. Ongoing capability
TEL-7	Support county-wide initiatives identified in Section 9.1 of the county Annex.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TEL-8	Support/Participate in the Stream Team program offered by the Onondaga County SWCD, to assist in the removal of debris, log jams, etc. in flood vulnerable stream sections.				Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
TEL-9	Water protection aka LT-Z FEMA directed facility for municipal water by constructing ultraviolet treatment plant that will treat incoming potable water supply.				Complete	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Complete
TEL-10	Participate in RL/SRL property owner outreach and education activities, provided by FEMA, as initiated and coordinated by the county initiative OC-35, described herein. Within the first year of Plan adoption, request FEMA to conduct a mitigation workshop targeting those communities with significant numbers of flood vulnerable properties and Repetitive Loss/Severe Repetitive Loss (RL/SRL) properties (e.g. Towns of Cicero, DeWitt, Elbridge, Lafayette, Lysander, Manlius; Village of Skaneateles; City of Syracuse). This program should address the specific interests and concerns of these flood vulnerable communities in the county which includes: • Gaining a better understanding of the available mitigation grant programs, including the procedural requirements of a RL/SRL community under this program; • Understanding how flood vulnerable and RL/SRL communities can enhance their efforts to encourage and support property owners to mitigate their properties, • Understanding how flood vulnerable and RL/SRL communities can best leverage existing data, information and studies (e.g. NFIP data) to target specific properties for mitigation, and • Learning what resources are available to conduct/complete Repetitive Loss Area Analyses, and gather critical data (e.g. structure elevations) to screen and move properties through the applicable mitigation grant programs. The county shall promote this workshop through established groups and forums including the OC SWCD and the ongoing County Hazard Mitigation Planning Committee. Further, the county shall continue to conduct meetings as needed with these flood vulnerable communities, with the support of NYSOEM and FEMA, to assist communities as they work to address their flood vulnerable and RL/RSL properties.							

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	See above.	Ongoing			Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing capability
						Level of Protection		
						Damages Avoided; Evidence of Success		

Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Elbridge has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2013 Plan:

- Bridge on Shants Road-Highway Department-Enlarge for flood mitigation and be up to compliance with NYS DOT standards.
- Culvert/bridge Campbell Road-Highway Department-Enlarged for flood mitigation and widen bridge to be compliant with DOT standards
- Sandbank Road Lower Knoll-Highway Department-For better drainage and sight distance
- Valley Drive Culvert-Highway Department-Drainage/stream clearing

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Elbridge participated in a mitigation action workshop on January 14, 2019 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 551 'Selecting Appropriate Mitigation Measures for Floodprone Structures' (March 2007) and FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013).

Error! Reference source not found. summarizes the comprehensive-range of specific mitigation initiatives the Town of Elbridge 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 9.9-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

Table 9.9-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Hazard(s) Mitigated	Goals Met	Description of the Problem	Description of the Solution	Critical Facility (Yes / No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead and Support Agencies	Estimated Cost	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
T. Elbridge-1	Upgrade culvert at Sandbank Road	Flood, Severe Storm	1	The culvert at Sandbank Road is undersized (48") and needs to be upgraded.	The culvert will be replaced with a larger culvert (60").	No	None	1 year	Highway Department	$25,000	Reduced flood risk.	HMGP, PDM, CHIPS, municipal budget	High	SIP	SP
T. Elbridge-2	Upgrade bridge at Gorham Road.	Flood, Severe Storm	1	The bridge opening at Gorham Road is undersized and needs to be upgraded	The bridge will be reconstructed to allow for an opening of 10' x 9'.	No	None	Within 2 years	Highway Department	$150,000	Reduced flood risk.	HMGP, PDM, NY Bridges, municipal budget	High	SIP	SP
T. Elbridge-3	Vegetation/ Tree Management and Mitigation Project	Severe Storm, Severe Winter Storm, Invasive Species	1, 4	Falling tree limbs and trees on town, county, and state roads throughout the town. This leads to closed roads, infrastructure damage, and power outages. This can prevent emergency personnel from accessing areas of the town. There are no specific tree species that	The town will hire a tree service to evaluate trees, survey and harvest as necessary. The town will use surveying of trees to supplement NY DEC identification and mapping of invasive species to isolate/treat populations. The Environmental	No	None	Ongoing throughout each year	Highway Department, Environmental Commission	$15,000/ year	High-reduction of power outages	Operating budget, HMGP	High	NSP	NR

Project Number	Project Name	Hazard(s) Mitigated	Goals Met	Description of the Problem	Description of the Solution	Critical Facility (Yes / No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead and Support Agencies	Estimated Cost	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				are prone to falling but ash trees are prone to emerald ash borer infestation. This may cause power line disruption or personal injuries. Storms of late have caused sporadic times for reaction from road crews.	Commission will keep records of areas of invasives identified during the tree management and share this information with NY DEC.										
T. Elbridge-4	Debris removal/ Stream Clearing of Seneca River/Cross Lake	Flood	3, 4, 5	Eno Point is prone to ice/log jams due to shallow water and debris.	Dredge the Seneca River/Cross Lake. Regularly remove debris.	No	Would likely need to receive environmental permitting.	5 years	Town Board	$50,000	Flooding from ice/log jams avoided	HMGP	High	NSR	NR
T. Elbridge-5	Educate farmers on need to preserve hedgerows	Geologic, Severe Winter Storm	2, 3, 4, 5	Hedgerow removal has increased the occurrence of mudslides and drifting snow in agricultural areas.	Coordinate with the Soil & Water Conservation District to educate farmers on need to preserve hedgerows.	No	None	Within 1 year	Village Board support from SWCD	$500	Reduces mudslide and drifting snow threat.	Local budget	High	EAP	PI
T. Elbridge-6	Develop robocall/notification system to notify residents of	Harmful Algal Bloom	1, 2, 6	Past HAB events have required water advisories but town lacks	A robocall or notification system will be developed to	No	None	Within 3 years	Village Board	$500,000	Residents notified of hazard events.	HMGP, Local budget	High	EAP	PI

Project Number	Project Name	Hazard(s) Mitigated	Goals Met	Description of the Problem	Description of the Solution	Critical Facility (Yes / No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead and Support Agencies	Estimated Cost	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
	water advisories			system to efficiently notify residents.	notify residents. Outreach on new system and actions required by public will take place.										
T. Elbridge-7	Testing program for Harmful Algal Blooms	Harmful Algal Bloom	1, 2, 4, 6	State testing is limited in frequency and areas sampled.	Testing of town water bodies will supplement state testing.	No	None	Within 1 year	Village Board	$500	Early detection of HAB's.	Municipal budget, Environmental grants	Medium	NSP	NR
T. Elbridge-8 (former TEL 1a)	Retrofit Hazard Prone Structures	Flood, Severe Storm	1, 2, 3,6	Structures in hazard prone areas are exposed to risk.	Where appropriate, support retrofitting of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for retrofitting based on cost-effectiveness	No	None	Within 5 years	NFIP Floodplain Administrator	Roughly $35,000 per structure	Reduced damages during flood and severe storm events.	FEMA Mitigation Grant Programs and local match	High	SIP	PP

Project Number	Project Name	Hazard(s) Mitigated	Goals Met	Description of the Problem	Description of the Solution	Critical Facility (Yes / No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead and Support Agencies	Estimated Cost	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
					versus relocation. Where retrofitting is determined to be a viable option, consider implementation of that action based on available funding.										
T. Elbridge-9 (former TEL 1b)	Purchase/Relocate Hazard Prone Structures	Flood, Severe Storm	1, 2, 3 6	Structures in hazard prone areas are exposed to risk.	Where appropriate, support purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for relocation based on	No	None	Within 5 years	NFIP Floodplain Administrator	Roughly $200,000 per structure	Property no longer exposed to flood/severe storm damages.	FEMA Mitigation Grant Programs and local match	High	SIP	PP

Project Number	Project Name	Hazard(s) Mitigated	Goals Met	Description of the Problem	Description of the Solution	Critical Facility (Yes / No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead and Support Agencies	Estimated Cost	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
					cost-effectiveness versus retrofitting. Where relocation is determined to be a viable option, consider implementation of that action based on available funding.										

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*
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*

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.

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*

Critical Facility:

Yes *Critical Facility located in 1% floodplain*

Table 9.9-13. 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
T. Elbridge-1	Upgrade culvert at Sandbank Road	0	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
T. Elbridge-2	Upgrade bridge at Gorham Road.	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
T. Elbridge-3	Vegetation/Tree Management and Mitigation Project	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
T. Elbridge-4	Debris removal/Stream Clearing of Seneca River/Cross Lake	1	1	1	1	1	0	1	0	1	1	0	1	1	1	11	High
T. Elbridge-5	Educate farmers on need to preserve hedgerows	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
T. Elbridge-6	Develop robocall/notification system to notify residents of water advisories	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
T. Elbridge-7	Testing program for Harmful Algal Blooms	0	0	1	0	1	1	0	1	1	1	0	1	0	1	8	Medium
T. Elbridge-8 (former TEL 1a)	Retrofit Hazard Prone Structures	1	1	1	0	1	1	0	1	1	1	0	0	1	1	10	High
T. Elbridge-9 (former TEL 1b)	Purchase/Relocate Hazard Prone Structures	1	1	1	0	1	1	0	1	1	1	0	0	1	1	10	High

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

9.9.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.9.8 Staff and Local Stakeholder Involvement in Annex Development

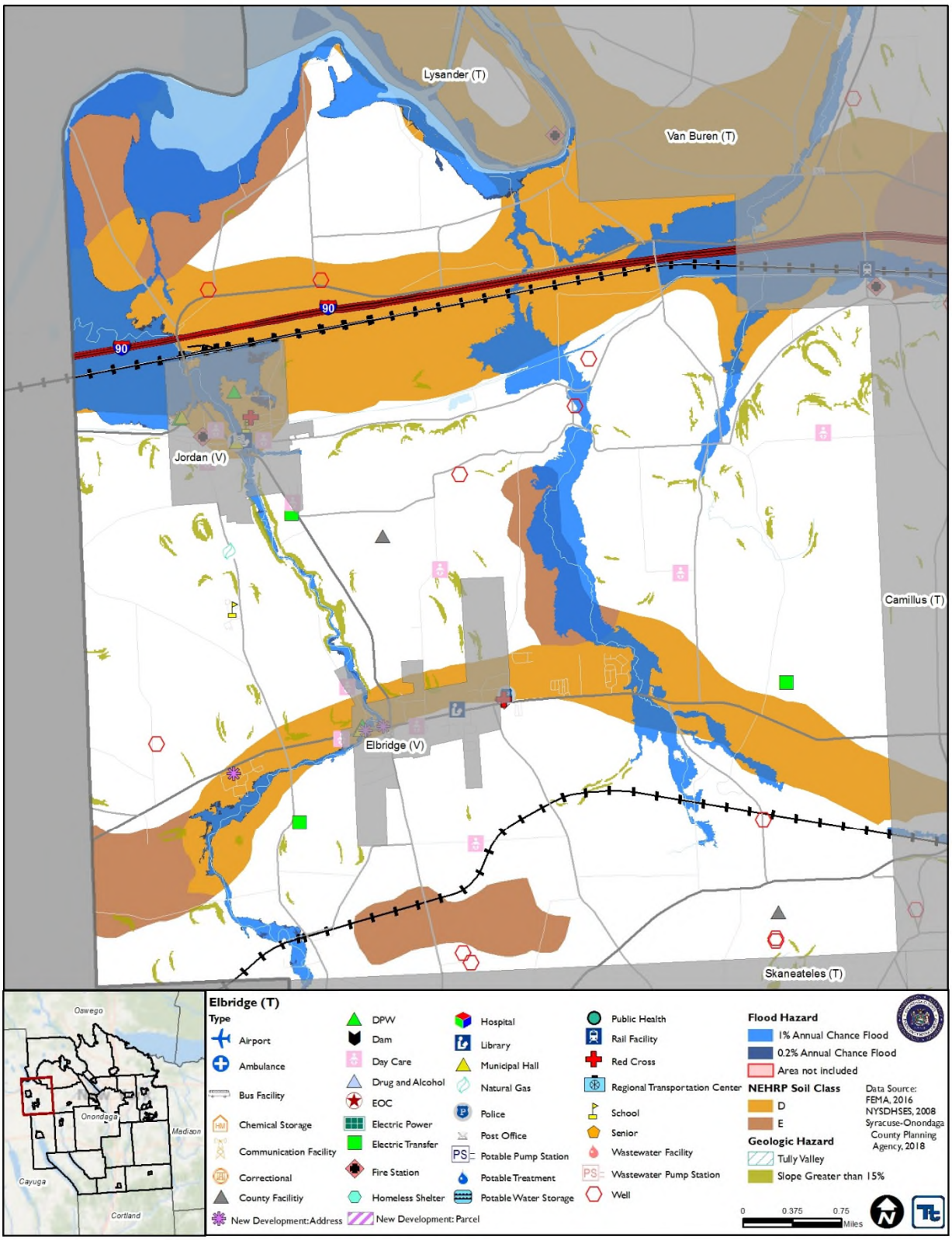
The Town of Elbridge followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many town departments, including: the Highway Superintendent, the Codes Official, and a Town Councilor. Floyd Duger (Town Councilor) and Robert Herrmann Jr (Codes Official) represented the community on the Steering Committee and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. The Highway Superintendent represented the town on the Onondaga County Hazard Mitigation Plan Planning Partnership. 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 (Meetings).

9.9.9 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Town of Elbridge that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Elbridge has significant exposure. A map of the Town of Elbridge hazard area extent and location is provided on the following page. This map indicates the location of the regulatory floodplain as well as identified critical facilities within the municipality.

Figure 9.9-1. Town of Elbridge Hazard Area Extent and Location Map



Town of Elbridge Action Worksheet			
Project Name:	Upgrade culvert at Sandbank Road		
Project Number:	T. Elbridge-1		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	The culvert at Sandbank Road is undersized and needs to be upgraded. The current culvert size is 48". The culvert has had minor flooding issues in the past but potential for major flooding exists.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Highway Department will replace the existing 48" culvert with a 60" culvert.		
Is this project related to a Critical Facility?	Yes ☐	No ☒	
Is this project related to a Critical Facility located within the 100-year floodplain?	Yes ☐	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:	25 year event	**Estimated Benefits (losses avoided):**	Reduction in flood risk
Useful Life:	30 years	**Goals Met:**	1
Estimated Cost:	$25,000	**Mitigation Action Type:**	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	**Desired Timeframe for Implementation:**	1 year
Estimated Time Required for Project Implementation:	6 months	**Potential Funding Sources:**	HMGP, PDM, CHIPS, municipal budget
Responsible Organization:	Highway Department	**Local Planning Mechanisms to be Used in Implementation if any:**	

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Problem continues.
	Close roadway and remove culvert	$10,000	Access reduced, emergency response negatively impacted.
	Relocate roadway and culvert to less impactful area	N/A	Not 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:	Upgrade culvert at Sandbank Road	
Project Number:	T. Elbridge-1	
Criteria	**Numeric Rank (-1, 0, 1)**	**Provide brief rationale for numeric rank when appropriate**
Life Safety	0	
Property Protection	1	Project will reduce flood risk and risk of washout to Sandbank Road.
Cost-Effectiveness	1	
Technical	1	Town has technical experience with replacing and upsizing culverts.
Political	1	
Legal	1	Town has the legal authority to complete the project.
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	1	1 year
Agency Champion	1	Highway Department
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	

Town of Elbridge Action Worksheet			
Project Name:	Upgrade bridge at Gorham Road		
Project Number:	T. Elbridge-2		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	The bridge opening at Gorham Road is undersized and the bridge needs to be replaced. The bridge has had minor flooding issues in the past but potential for major flooding exists and the continued degradation of the bridge increases risk of collapse.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Highway Department will replace the existing bridge. The bridge will be reconstructed to allow for an opening of 10' x 9' to increase the volume of water that can pass under the bridge. The larger opening will also reduce the risk of debris jams under the bridge.		
Is this project related to a Critical Facility?	Yes ☐	No ☒	
Is this project related to a Critical Facility located within the 100-year floodplain?	Yes ☐	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:	To be determined	**Estimated Benefits (losses avoided):**	Reduction in flood risk
Useful Life:	30 years	**Goals Met:**	1
Estimated Cost:	$150,000	**Mitigation Action Type:**	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	**Desired Timeframe for Implementation:**	Within 2 years
Estimated Time Required for Project Implementation:	1 year	**Potential Funding Sources:**	HMGP, PDM, NY Bridges, municipal budget
Responsible Organization:	Highway Department	**Local Planning Mechanisms to be Used in Implementation if any:**	

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Problem continues.
	Close roadway and remove bridge	$75,000	Access reduced, emergency response negatively impacted.
	Relocate roadway and bridge to less impactful area	N/A	Not 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:	Upgrade bridge at Gorham Road	
Project Number:	T. Elbridge-2	
Criteria	**Numeric Rank (-1, 0, 1)**	**Provide brief rationale for numeric rank when appropriate**
Life Safety	1	Project will reduce risk of bridge collapse.
Property Protection	1	Project will reduce flood risk and risk of washout to Gorham Road
Cost-Effectiveness	1	
Technical	1	Town has technical experience with replacing bridges and upsizing bridge openings
Political	1	
Legal	1	Town has the legal authority to complete the project.
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	0	Within 2 years
Agency Champion	1	Highway Department
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	

Town of Elbridge Action Worksheet			
Project Name:	Vegetation/Tree Management and Mitigation Project		
Project Number:	T. Elbridge-3		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Storm, Severe Winter Storm, Invasive Species		
Description of the Problem:	Falling tree limbs and trees on town, county, and state roads throughout the town. This leads to closed roads, infrastructure damage, and power outages. This can prevent emergency personnel from accessing areas of the town. There are no specific tree species that are prone to falling but ash trees are prone to emerald ash borer infestation. This may cause power line disruption or personal injuries. Storms of late have caused sporadic times for reaction from road crews.		
Action or Project Intended for Implementation			
Description of the Solution:	The town will hire a tree service to evaluate trees, survey and harvest as necessary. The town will use surveying of trees to supplement NY DEC identification and mapping of invasive species to isolate/treat populations. The Environmental Commission will keep records of areas of invasives identified during the tree management and share this information with NY DEC.		
Is this project related to a Critical Facility?	Yes ☐	No ☒	
Is this project related to a Critical Facility located within the 100-year floodplain?	Yes ☐	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:	Not applicable	**Estimated Benefits (losses avoided):**	High-reduction of power outages
Useful Life:	Not applicable-ongoing action	**Goals Met:**	1, 4
Estimated Cost:	$15,000/year	**Mitigation Action Type:**	Natural Systems Protection
Plan for Implementation			
Prioritization:	High	**Desired Timeframe for Implementation:**	1 year
Estimated Time Required for Project Implementation:	Ongoing throughout each year	**Potential Funding Sources:**	Operating Budget, HMGP
Responsible Organization:	Highway Department, Environmental Commission	**Local Planning Mechanisms to be Used in Implementation if any:**	Hazard Mitigation Plan

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Current problem continues
	Education program to teach people how to maintain trees and report problem tree.	$500/year	Limited impact
	Change zoning to increase distance between structures/infrastructure and trees.	$500	Only deals with future issues, not current problem

Progress Report (for plan maintenance)	
Date of Status Report:	
Report of Progress:	

Action Worksheet		
Project Name:	Vegetation/Tree Management and Mitigation Project	
Project Number:	T. Elbridge-3	
Criteria	**Numeric Rank (-1, 0, 1)**	**Provide brief rationale for numeric rank when appropriate**
Life Safety	0	
Property Protection	1	Protects property from damage from falling limbs
Cost-Effectiveness	1	
Technical	1	
Political	1	Public would support the initiative
Legal	1	
Fiscal	0	Project requires funding support.
Environmental	1	Keeps ecosystems healthy
Social	1	
Administrative	1	
Multi-Hazard	1	Severe storm, severe winter storm
Timeline	1	
Agency Champion	1	Highway Department, Environmental Commission
Other Community Objectives	1	Environmental preservation
Total	13	
Priority (High/Med/Low)	High	