

# 2025 Hazard Mitigation Plan

Onondaga County,  
New York

**Town of Manlius  
Annex**





# TABLE OF CONTENTS

- 1. HAZARD MITIGATION LOCAL PLANNING TEAM.....1**
- 2. MUNICIPAL PROFILE.....1**
  - 2.1. Population .....1
  - 2.2. History and Cultural Resources .....2
- 3. GROWTH/DEVELOPMENT TRENDS.....2**
  - 3.1. Changes in Priority.....3
- 4. CAPABILITY ASSESSMENT.....3**
  - 4.1. Planning and Regulatory Capabilities .....4
  - 4.2. Administrative and Technical Capabilities .....6
  - 4.3. Fiscal Capabilities .....7
  - 4.4. Education and Outreach Capabilities .....8
  - 4.5. Community Classifications .....8
  - 4.6. Self-Assessment of Capability .....9
  - 4.7. Needs to Expand/Improve Capabilities.....9
- 5. NATIONAL FLOOD INSURANCE PROGRAM.....10**
  - 5.1. NFIP Floodplain Administrator .....10
  - 5.2. Repetitive Loss and Severe Repetitive Loss Property .....10
  - 5.3. Participation Activities.....11
    - 5.3.1. Regulatory .....12
- 6. HAZARD MITIGATION PLAN INTEGRATION .....13**
  - 6.1. Existing Plan Integration.....13
  - 6.2. Potential Future Integration .....14
- 7. SIGNIFICANT HAZARD PAST EVENTS .....15**
- 8. HAZARD VULNERABILITY AND IMPACT ASSESSMENT .....15**
  - 8.1. Future Major Assets .....19
- 9. CRITICAL FACILITIES FLOOD RISK.....19**
- 10. HAZARD RISK RANKING.....20**
- 11. MITIGATION ACTIONS .....22**
- APPENDIX A. HAZARD MAPS .....44**
- APPENDIX B. LETTER OF INTENT.....48**
- APPENDIX C. PLAN ADOPTION .....49**



This Annex details the hazard mitigation elements specific to the Town of Manlius, a participating jurisdiction in the 2025 Onondaga County Hazard Mitigation Plan update. This Annex is not intended to be a standalone document but supplements the information contained in **Volume 1 (Countywide Planning Elements)**. Therefore, all sections of **Volume 1**, including the planning process, hazard identification and risk assessment, mitigation strategy (includes mitigation goals and objectives), and plan maintenance, apply to and were met by the Town of Manlius. This Annex provides additional information specific to the Town, with a focus on providing additional details on the hazard risk assessment and mitigation strategy (i.e., mitigation actions) for this community.

## 1. HAZARD MITIGATION LOCAL PLANNING TEAM

The following individuals have been identified as the Town of Manlius Local Planning Team for the 2025 Onondaga County Hazard Mitigation Plan. These individuals participated in all aspects of the planning process and developed a risk and vulnerability assessment, capability assessment, and mitigation strategy (including mitigation actions) specific to the jurisdiction.

Name	Title	Department
John Deer	Town Supervisor	Town Board
Thomas Poitras	Code Enforcement Officer	Planning & Development
Rob Cushing	Highway Superintendent	Highway Department

## 2. MUNICIPAL PROFILE

The Town of Manlius lies along the eastern border of Onondaga County with a total area of 50.0 square miles. The major streams within the Town are Limestone Creek, West Branch Limestone Creek, Butternut Creek, and Chittenango Creek. The Erie Canal, which cuts across the Town from east to west, crosses over Limestone Creek. The Town is bordered to the north by the Town of Cicero, to the west by the Town of DeWitt, to the south by the Town of Pompey, and to the east and southeast by Madison County.

There are three (3) villages within the Town of Manlius – the Village of Fayetteville, the Village of Manlius, and the Village of Minoa. The Village of Fayetteville is in the western area of the Town at the junction of New York State Route 257 and New York State Route 5. The Village of Manlius is near the southern area of the Town at the junction of New York State Route 92 and New York State Route 173. The Village of Minoa is in the northern part of the Town on New York State Route 257. *The villages of Fayetteville, Manlius, and Minoa each have developed dedicated annexes as part of this Plan.*

### 2.1. Population

In 2023, the Town of Manlius had a population of 33,033, a 3.2% increase from the estimated 2018 population of 32,002. **Table 1** summarizes population distribution between 2010 and 2023, and the percentage of the 2023 population that is under five (5) years old, over 65 years old, and living below the poverty level.



**Table 1. Population Trends**

Population				Underserved Population		
2010 <sup>1</sup>	2018 <sup>2</sup>	2023 <sup>3</sup>	Population Change (2018 – 2023)	Youth <sup>3</sup> (Under 5 years old)	Elderly <sup>3</sup> (Over 65 years old)	Below Poverty Level <sup>3</sup>
32,370	32,002	33,033	3.2%	5.8%	21.7%	5.6%

## 2.2. History and Cultural Resources

The Town was a township of the former Central New York Military Tract. Manlius is the name of several important Romans, but exactly which one was being honored is no longer known.

The Town of Manlius was created in 1794, alongside Onondaga County, as a much larger entity. Over time, its size decreased with the formation of new towns, including DeWitt, Onondaga, Salina, and portions of Syracuse. Originally, it was bounded by the township of Cicero to the north, the Onieda Reservation to the east, Pompey to the south, and Onondaga Creek and Lake to the west. This included the Onondaga Salt Springs Reservation north of the old Genesee Road and east of Onondaga Creek, including the present towns of Manlius, DeWitt, and portions of Onondaga and Salina, as defined in 1809. In 1835, the Town’s boundaries were reduced to their current size. The early development of the Town was contributed to by the trade-generated economy influenced by the Erie Canal.

## 3. GROWTH/DEVELOPMENT TRENDS

Understanding development trends can help evaluate whether the jurisdiction’s vulnerability has increased, decreased, or remained the same. **Table 2** summarizes the total housing units built in the Town of Manlius between 2019 and 2023.<sup>4</sup>

**Table 2. Housing Units Built (2019 – 2023)**

Type	2019	2020	2021	2022	2023
Single-Family Units	22	30	17	6	13
Multi-Family Units	0	0	0	2	0
2-Family Units	0	0	0	2	0
3-Family Units	0	0	0	0	0
Apartment Units	0	0	0	0	0
<b>Total Units</b>	<b>22</b>	<b>30</b>	<b>17</b>	<b>8</b>	<b>13</b>

The Onondaga County Housing Needs Assessment, a component of the County’s Comprehensive Plan, explores the County’s housing market and its challenges in greater depth and argues that one of the County’s greatest housing needs is an improved approach to land use planning. In the Assessment, it is stated that there are similarities and affinities between certain groups of municipalities. Therefore, the County was sub-divided into seven (7) sub-regions, each of which covers multiple municipalities. The municipalities within each sub-region, share sufficient

<sup>1</sup> United States Census Bureau. (2023). QuickFacts: Town of Manlius. Retrieved from <https://www.census.gov/quickfacts/fact/table/manliustownonondagacountynewyork>.

<sup>2</sup> United States Census Bureau. (2018). DP05: ACS Demographic and Housing Estimates (2018: 5-Year Estimates Data Profiles). Retrieved from <https://data.census.gov/table/ACSDP5Y2018.DP05?g=060XX00US3606745029>.

<sup>3</sup> United States Census Bureau. (2023). QuickFacts: Town of Manlius. Retrieved from <https://www.census.gov/quickfacts/fact/table/manliustownonondagacountynewyork>.

<sup>4</sup> Data provided by the Onondaga County Department of Planning based on Real Property Data (2024).



geographic and market characteristics to be treated as a single place for purposes of further understanding the county housing market.

The Town of Manlius is in the Outer Ring East sub-region. Total household growth between 2000 and 2020 was 8.0% which is below the average of all the towns within the County (the average of all the County towns/villages was 12.0%). If demand continues to grow in the County, Outer Ring East is well positioned to capture a share of the growth. Overbuilding of typical single-family for sale products is a potential threat to market health as household growth tilts in the direction of rental while the growth in owner households comes from smaller and older households. Under a low growth scenario, it is likely that Outer Ring East would see a decrease in the total number of homeowners and a growing number of renter households. It is also likely that some conversion of owner-occupied houses to rental could occur. Market changes would happen gradually, with strong areas remaining strong for longer, and new single-family development would maintain a feeling of growth and success if it occurs. The degree and speed of stagnation, and possible market decline, would be dependent on the amount of typical sprawling ownership housing development in the County. The greater the number of units built for the ownership market, the higher the risk of rental conversion or vacancy of formerly owner-occupied houses.

Table 3 summarizes major recent residential/commercial development (in the past five (5) years), and any known or anticipated significant residential/commercial development and significant infrastructure development, as of December 2024, that is likely to occur within hazard-prone areas in the next five (5) years.

Table 3. Growth and Development

Property or Development Name	Location	Type <i>(e.g., residential, commercial)</i>	# of Units/ Structures	Known Hazard Zone(s)	Status of Development
<b>Recent Development in the Past Five (5) Years (2019 – 2024)</b>					
Brinan Fields Run	Brinan Fields Run Manlius, NY 13104	Residential	63	Geological Hazards	Complete
<b>Known or Anticipated Development in the Next Five (5) Years (2024 – 2029)</b>					
Austin Meadows	Edwards Falls Lane Manlius, NY 13104	Residential	80	Earthquake, Geological Hazards	Under Construction
Garden Park	Highbridge Street Manlius, NY 13104	Residential	86	Geological Hazards	Pending Site Plan Approval

### 3.1. Changes in Priority

In the last five (5) years, flooding in the Town of Manlius has increased, driven by the increased severity and frequency of rainfall events, and the existing infrastructure is challenged to meet the increased demands. The Town is moving towards a consolidated drainage district to allow for more flexibility in increasing drainage infrastructure capacity. Furthermore, the Town has formed the Manlius Watersheds Stewards Committee to focus on the various watersheds and plans to add drainage infrastructure in Homewood, a large and older neighborhood. As development increases, the Town will see more encroachment into the floodplain and would like to be proactive in mitigating these issues. At the time of this Plan update, the Town was conducting a drainage study on North Eagle Village Road, which frequently floods. Additionally, mitigation actions from the previous Plan were updated, and a more concerted effort to achieve equitable outcomes for all communities, including underserved communities and socially vulnerable populations, has been implemented.

## 4. CAPABILITY ASSESSMENT

Federal regulations require hazard mitigation plans to identify goals for reducing long-term vulnerabilities to the identified hazards in the planning area (Section 201.6(c)(3)(i)). A critical step in developing specific hazard



mitigation actions and projects is assessing existing authorities, policies, programs, and resources and capabilities, and using or modifying local tools to reduce losses and vulnerability from profiled hazards.

A capability assessment was conducted for the Town of Manlius’ authorities, policies, programs, and resources. Goals and mitigation actions were developed using input from this assessment. Information regarding the Town’s implementation of and continued participation in the National Flood Insurance Program (NFIP) can be found in Section 5 of this Annex.

The Local Planning Team assessed the Town’s capabilities that can contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include the following categories:

- Planning and Regulatory Capabilities
- Administrative and Technical Capabilities
- Fiscal Capabilities
- Education and Outreach Capabilities

Additionally, ways to expand and improve these existing policies and programs to integrate hazard mitigation into the Town's day-to-day activities were considered.

#### 4.1. Planning and Regulatory Capabilities

**Table 4** includes local ordinances, policies, and laws to manage growth and development (e.g., land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes, and zoning ordinances).

**Table 4. Planning and Regulatory Tools**

Capability Category	Yes/No	Authority <i>(local, county, state, federal)</i>	Responsible Department/ Agency	Code Citation and Comments <i>(e.g., Code Chapter, name of plan, explanation of authority, etc.)</i>
<b>Planning Capability</b>				
Comprehensive Plan	Yes	Local	Comprehensive Planning Committee	Adopted on July 2023
Capital Improvements Plan	Yes	Local	Town Supervisor	N/A
Floodplain Management / Basin Plan	Yes	Local	Town Engineer, Highway Department	
Stormwater Management Plan	Yes	Local	Town Engineer	Member of the Central New York (CNY) Stormwater Coalition
Open Space Plan	No	N/A	N/A	N/A
Stream Corridor Management Plan	No	N/A	N/A	N/A
Watershed Management or Protection Plan	No	N/A	N/A	N/A



Capability Category	Yes/No	Authority <i>(local, county, state, federal)</i>	Responsible Department/ Agency	Code Citation and Comments <i>(e.g., Code Chapter, name of plan, explanation of authority, etc.)</i>
Economic Development Plan	No	N/A	N/A	N/A
Comprehensive Emergency Management Plan	Yes	Local	Police Department	
Emergency Operation Plan	Yes	Local	Police Department	
Evacuation Plan	No	N/A	N/A	N/A
Post-Disaster Recovery Plan	No	N/A	N/A	N/A
Transportation Plan	No	N/A	N/A	N/A
Strategic Recovery Planning Report	No	N/A	N/A	N/A
Climate Adaptation Plan	No	N/A	N/A	N/A
Resilience Plan	No	N/A	N/A	N/A
<b>Regulatory Capability</b>				
Building Code	Yes	State, Local	Planning & Development Department	Chapter 16 of the New York State Building Code Chapter 59 of the Town Code
Zoning Ordinance	Yes	Local	Planning & Development Department	Chapter 155 of the Town Code
Subdivision Ordinance	Yes	Local	Planning & Development Department	Chapter 127 of the Town Code
NFIP Flood Damage Prevention Ordinance	Yes	Local	Planning & Development Department	Chapter 72 of the Town Code
NFIP: Cumulative Substantial Damages	No	N/A	N/A	N/A
NFIP: Freeboard	Yes	State, Local	Planning & Development Department	Chapter 16 of the New York State Building Code State mandated two (2) feet above the BFE for all construction, both residential and non-residential.
Growth Management Ordinances	No	N/A	N/A	N/A
Site Plan Review Requirements	Yes	Local	Planning Board	Chapter 155, Article IV, Section 28 of the Town Code
Stormwater Management Ordinance	Yes	Local	Planning & Development Department	Chapter 126 of the Town Code



Capability Category	Yes/No	Authority (local, county, state, federal)	Responsible Department/ Agency	Code Citation and Comments (e.g., Code Chapter, name of plan, explanation of authority, etc.)
Municipal Separate Storm Sewer System (MS4)	Yes	State, County, Local	Planning & Development Department	Permits are required for stormwater discharges from MS4s in urbanized areas and for construction activities disturbing one (1) or more acres. The Town has been automatically designated as a regulated MS4 and required to develop a comprehensive stormwater management program.
Natural Hazard Ordinance	No	N/A	N/A	N/A
Post-Disaster Recovery Ordinance	No	N/A	N/A	N/A
Real Estate Disclosure Requirement	Yes	State	New York State Department of State, Real Estate Agent	New York Code – Article 14 §460-467 (Property Condition Disclosure Act)
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	Yes	Local	N/A	Steep Slope Regulations

#### 4.2. Administrative and Technical Capabilities

The administrative and technical capabilities listed in **Table 5** include community (i.e., public and private) staff, their skills, and tools that can be used for mitigation planning and implementation. This capability includes engineers, planners, emergency managers, Geographic Information System (GIS) analysts, building inspectors, grant writers, and floodplain managers. Small communities may rely on other government entities, such as counties or special districts, for resources.

**Table 5. Administrative and Technical Capabilities**

Capability	Yes/No	Position/Department/Agency
<b>Administrative Capability</b>		
Planning Board	Yes	Planning & Development Department Town Engineer
Mitigation Planning Committee	Yes	Police Department Planning & Development Department Town Clerk Town Engineer
Environmental Board/Commission	Yes	Sustainable Manlius (Town’s environmental group) Manlius Watershed Stewards
Open Space Board/Committee	No	N/A
Economic Development Commission/Committee	No	N/A
Maintenance programs to reduce risk	Yes	Highway Department



Capability	Yes/No	Position/Department/Agency
Mutual aid agreements	Yes	Town Board Village of Fayetteville Fire & EMS Village of Manlius Fire & EMS Village of Minoa Fire & EMS Kirkville Fire District
Technical/Staffing Capability		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Town Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Town Engineer
Planners or engineers with an understanding of natural hazards	Yes	Town Engineer
NFIP Floodplain Administrator	Yes	Code Enforcement Officer, Planning & Development Department
Surveyor(s)	No	N/A
Personnel skilled or trained in GIS applications	Yes	Highway Department Town Engineer
Scientist familiar with natural hazards	Yes	Town Engineer
Warning systems/services	Yes	Onondaga County Emergency Communications (911)
Emergency Manager	Yes	Police Department Critical Response Committee
Grant writer(s)	No	N/A
Staff with expertise or training in benefit/cost analysis	No	N/A
Professionals trained in conducting damage assessments	Yes	Highway Department Town Engineer

### 4.3. Fiscal Capabilities

**Table 6** lists fiscal capabilities available to the Town that may be used to implement mitigation activities to reduce risk and enhance resiliency. This capability includes available funding sources from local budgets, state and federal grants, potential cost-sharing arrangements with private entities, existing insurance policies, and the ability to generate additional revenue through fees and bonds related to mitigation.

**Table 6. Fiscal Capabilities**

Financial Resources	Accessible or Eligible to Use
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Federal Hazard Mitigation Assistance Program ( <i>i.e.</i> , Hazard Mitigation Grant Program (HMGP), HMGP Post Fire, Flood Mitigation Assistance (FMA) Program)	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes



Financial Resources	Accessible or Eligible to Use
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater Utility Fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	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

#### 4.4. Education and Outreach Capabilities

Table 7 lists the Town’s education and public outreach capabilities that can be used to inform residents about potential hazards, educate on mitigation strategies, and encourage proactive actions to reduce the community’s impacts to disasters. These capabilities include fire safety programs, hazard awareness campaigns, public information, and communications offices.

**Table 7. Education and Outreach Resources**

Resource	Yes/No	Position/Department/Agency
Public Information Officer	No	N/A
Personnel skilled or trained in website development	No	N/A
Hazard mitigation information available on the jurisdiction’s website	Yes	
Utilize social media for hazard mitigation education	Yes	Critical Response Committee Planning and Development Department  <i>Facebook:</i> <a href="https://facebook.com/TownOfManlius">facebook.com/TownOfManlius</a> <i>X:</i> <a href="https://x.com/townofmanlius">x.com/townofmanlius</a> <i>YouTube:</i> <a href="https://youtube.com/@townofmanliusny3655">youtube.com/@townofmanliusny3655</a>
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Quarry Commission Watersheds Stewards Committee
Other programs already in place that could be used to communicate hazard-related information	No	N/A
An established warning system for hazard events	Yes	Onondaga County Emergency Communications (911)

#### 4.5. Community Classifications

The community classification relates 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 across all phases of emergency management (i.e., preparedness, response, recovery, and mitigation) and are used as underwriting parameters to determine the costs of various insurance forms. Table 8 summarizes classifications for community programs available to the Town of Manlius.



**Table 8. Community Classifications**

Program	Yes/No	Classification <i>(if applicable)</i>	Date Classified <i>(if applicable)</i>
Community Rating System (CRS)	No	N/A	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	Class 3	September 2019
Public Protection (ISO Fire Protection Classes 1 to 10)	No	N/A	N/A
New York State Department of Environmental Conservation Climate Smart Community	Yes	Bronze	March 2022
Storm Ready Certification	No	N/A	N/A
Firewise Communities classification	No	N/A	N/A
Natural disaster/safety programs in/for schools	Yes	N/A	N/A
Organizations with mitigation focus (advocacy group, non-government)	Yes	N/A	N/A
Public private partnership initiatives addressing disaster-related issues	No	N/A	N/A

#### 4.6. Self-Assessment of Capability

Table 9 provides an approximate measure of the Town of Manlius’ capability to work in a hazard mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

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

Capability Area	Degree of Hazard Mitigation Capability		
	<i>Limited</i> <i>(If limited, what are your obstacles?)</i>	<i>Moderate</i>	<i>High</i>
Planning and Regulatory Capabilities			<b>X</b>
Administrative and Technical Capabilities		<b>X</b>	
Fiscal Capabilities		<b>X</b>	
Education and Outreach Capabilities		<b>X</b>	
Community Political Capabilities			<b>X</b>
Community Resiliency Capabilities		<b>X</b>	
Capability to integrate mitigation into municipal processes and activities			<b>X</b>

#### 4.7. Needs to Expand/Improve Capabilities

Based on the capability self-assessment in Section 4.6, the Town of Manlius identified existing authorities, policies, programs, funding, and/or resources that need to be expanded and/or improved in order to support the implementation of the hazard mitigation initiatives identified in this Plan (e.g., mitigation actions).

- To increase the Town’s capability to apply for hazard mitigation grants and fund the local match for hazard mitigation grants, the Town needs to expand its grant writing capabilities by potentially hiring more grant writers.



- Town codes and ordinances (e.g., building, zoning, protecting steep slopes, wetlands) should be reviewed based on developing trends in identified hazards and mitigation measures that can make them more effective at preventing losses.

## 5. NATIONAL FLOOD INSURANCE PROGRAM

The Town of Manlius is a member of the National Flood Insurance Program (NFIP), but has chosen not to participate in the NFIP Community Rating System (CRS) Program. The Town is in good standing with the NFIP through 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. The Town’s NFIP participation information is listed in **Table 10**.

**Table 10. NFIP Participation Information**

CID	NFIP Participation Date	Current Effective FIRM Date	CRS Entry Date	CRS Current Effective Date	CRS Rating
360584	2/22/1974	11/4/2016	N/A	N/A	N/A

### 5.1. NFIP Floodplain Administrator

All NFIP participating jurisdictions have a designated Floodplain Administrator who is charged with enforcing floodplain regulations, routinely monitoring the floodplains, and providing community assistance, such as encouraging owners to maintain flood insurance. The Town of Manlius Floodplain Administrator information is listed in **Table 11**.

**Table 11. Floodplain Administrator**

Name	Title	Department	Phone Number
Thomas Poitras	Code Enforcement Officer	Planning & Development	(315) 637-8619

### 5.2. Repetitive Loss and Severe Repetitive Loss Property

FEMA defines a Repetitive Loss property as an NFIP-insured property meeting at least one (1) of the following paid loss criteria since 1978, regardless of any changes in ownership:

- Four (4) or more separate claims payments greater than \$5,000 each (including building and contents payment).
- Two (2) or more separate flood insurance claims payments (building payments only), where the total of the payments is greater than the property’s current value.

Additionally, to receive a designation, at least two (2) of the claim payments must occur within 10 years of one another.<sup>5</sup>

<sup>5</sup> Federal Emergency Management Agency, National Flood Insurance Program. (2023). A Policyholder’s Guide to Severe Repetitive Loss. Retrieved from [https://agents.floodsmart.gov/sites/default/files/fema\\_nfip-policyholders-guide-severe-repetitive-loss\\_brochure\\_07-2023.pdf](https://agents.floodsmart.gov/sites/default/files/fema_nfip-policyholders-guide-severe-repetitive-loss_brochure_07-2023.pdf).



A Severe Repetitive Loss property is defined by FEMA as any NFIP-insured single-family or multi-family residential building meeting at least one (1) of the following paid loss criteria since 1978 or from a building constructed after 1978, regardless of any changes in ownership:<sup>6</sup>

- That has incurred flood-related damage for which four (4) or more separate claims payments have been made, with the amount of each claim (including building and contents payments) exceeding \$5,000, and with the cumulative amount of such claims payments exceeding \$20,000.
- For which at least two (2) separate claims payments (building payments only) have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the building.

Table 12 summarizes FEMA Repetitive Loss and Severe Repetitive Loss properties within the Town of Manlius.

**Table 12. Repetitive Loss and Severe Repetitive Loss Properties**

Repetitive Loss Properties		Severe Repetitive Loss Properties	
Total	Occupancy	Total	Occupancy
3	2 Single Family 1 Two (2)-Four (4) Unit Residential Building	0	--
<i>Occupancy Type: Single Family = Single family residence • Two (2)-Four (4) Unit Residential Building = Two (2)-four (4) unit residential building • More Than Four (4) Units Residential Building = Residential building with more than four (4) units • Non-Residential Building = Non-residential building • Non-Residential Business = Non-residential business • Single Family Residential Building = Single-family residential building with the exception of a mobile home or a single residential unit within a multi-unit building • Residential (2, 3, or 4 units) Non-Condo Building = Residential non-condo building with two (2), three (3), or four (4) units seeking insurance on all units • Residential (5 or more units) Non-Condo Building = Residential non-condo building with 5 or more units seeking insurance on all units • Residential Mobile/Manufactured Home = Residential mobile/manufactured home • Residential Condo Association = Residential condo association seeking coverage on a building with one (1) or more units • Single Residential Unit = Single residential unit within a multi-unit building • Non-Residential Mobile/manufactured Home = Non-residential mobile/manufactured home • Non-Residential Building = Non-residential building • Non-Residential Unit = Non-residential unit within a multi-unit building</i>			

Table 13 summarizes the NFIP active policies and coverage in force data for the Town of Manlius.

**Table 13. NFIP Policies**

NFIP Policies	Insurance in Force	Total Claims Paid	Sum of Claims Paid
110	\$111,089	41	\$285,597

### 5.3. Participation Activities

The Town of Manlius NFIP participation over the last five (5) years includes the following:

- Provides the following services – permit review, GIS, inspections, and engineering capability.
- Teaches property owners or other stakeholders about the importance of flood insurance through public outreach events, workshops, and/or seminars. Additionally, flood insurance information is shared with residents periodically.
- Enforces local floodplain regulations and monitors compliance.
- Floodplain management regulations meet or exceed FEMA or State minimum requirements.

<sup>6</sup> Federal Emergency Management Agency, National Flood Insurance Program. (2021). National Flood Insurance Program: Flood Insurance Manual. Retrieved from [https://www.fema.gov/sites/default/files/documents/fema\\_nfip-all-flood-insurance-manual-apr-2021.pdf](https://www.fema.gov/sites/default/files/documents/fema_nfip-all-flood-insurance-manual-apr-2021.pdf).



### 5.3.1. Regulatory

#### Flood Damage Prevention Ordinance

The Town of Manlius' Flood Damage Prevention Chapter (*Chapter 72 of the Town Code*) was adopted 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:

- 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 floodwaters.
- Control filling, grading, dredging and other development which may increase erosion or flood damages.
- Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.
- Qualify for and maintain participation in the NFIP.

The objectives of this Chapter are to:

- Protect human life and health.
- Minimize expenditure of public money for costly flood control projects.
- Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
- Minimize prolonged business interruptions.
- Minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone, and sewer lines, streets and bridges located in areas of special flood hazard.
- Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas.
- Provide that developers are notified that property is in an area of special flood hazard.
- Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

#### Substantial Damage

*Substantial damage* means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred. (*Chapter 72 of the Town Code*)

#### Substantial Improvement

*Substantial improvement* means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the "start of construction" of the improvement. The term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:



- A. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
- B. Any alteration of an "historic structure," provided that the alteration will not preclude the structure's continued designation as an "historic structure." (*Chapter 72 of the Town Code*)

There are other local ordinances, plans, or programs (e.g., site plan review) that support floodplain management and meet the NFIP requirements.

### Substantial Damage/Substantial Improvement Determination Process

The Town of Manlius' Substantial Damage/Substantial Improvement determination process ensures compliance with the NFIP and the local floodplain management ordinances (as outlined earlier in this section). To determine whether a structure has sustained Substantial Damage/Substantial Improvement after a flood event, the Town building inspectors conduct an analysis and review of the structure or, if needed, with the assistance of a registered design professional (e.g., architect, engineer).

## 6. HAZARD MITIGATION PLAN INTEGRATION

For a community to successfully reduce long-term risk, hazard mitigation must be integrated into day-to-day planning mechanisms and initiatives. Plan integration is the process by which communities critically assess the existing planning framework and align efforts with the goal of reducing long-term risks and building a more resilient community. It involves a two (2) way exchange of information and incorporation of ideas and concepts between hazard mitigation plans and other community plans. In particular, plan integration involves incorporating hazard mitigation principles and actions into other plans and integrating planning mechanisms into hazard mitigation plans. Plan integration involves community plans, policies, codes, and programs that guide development, roles, and responsibilities in implementing these capabilities. Additionally, plan integration is achieved through the involvement of key staff and community officials in collaborative hazard mitigation planning.

### 6.1. Existing Plan Integration

A hazard mitigation plan must explain how the jurisdiction incorporated the previous Plan update over the last five (5) years to demonstrate progress in local mitigation efforts. In the performance period since the adoption of the previous Hazard Mitigation Plan, the Town of Manlius has made progress on integrating components of the hazard mitigation strategy (e.g., goals, objectives, and actions) into planning initiatives and mechanisms. **Table 14** highlights the planning mechanisms/initiatives in which the previous Plan was integrated and the information integrated.

**Table 14. Current Plan Integration**

Planning Initiative	Current Integration Description
Comprehensive Plan	The Town’s Comprehensive Plan, last updated in 2023, identifies the Hazard Mitigation Plan (2019 updated) as a supporting document for the development of the Comprehensive Plan. Furthermore, the mitigation actions identified in the County’s Hazard Mitigation Plan were reviewed and, as appropriate, implemented during the development of the goals and Implementation Items for the Town’s Comprehensive Plan.



Planning Initiative	Current Integration Description
Ordinances	The Town has multiple local ordinances pertaining to the mitigation of hazards. These ordinances include the establishment of the Planning Board and Zoning Board, Building Construction and Fire Prevention Ordinance (Chapter 59 of the Town Code), Flood Damage Prevention Ordinance (Chapter 72 of the Town Code), Stormwater Management Ordinance (Chapter 126 of the Town Code), Zoning Ordinance (Chapter 155 of the Town Code), and the Subdivision Regulations (Chapter 127 of the Town Code).
Public Outreach	The Town’s website and social media (i.e., Facebook, X, and YouTube) provide information related to safety and hazard mitigation, including local emergency response contact information, direct links to flood hazard maps, stormwater management, and street tree management, and links to related ordinances and plans. <i>Refer to mitigation action TMN-3.</i>
Retrofitting/Removal of Structures from Hazard-Prone Areas	The Town supports the retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect them from future damage, with repetitive loss and severe repetitive loss properties as a priority. The Town works to identify facilities that are viable candidates for each strategy based on cost-effectiveness. The implementation of these hazard mitigation actions is based on available funding. <i>Refer to mitigation action TMN-4.</i>

## 6.2. Potential Future Integration

A hazard mitigation plan must explain how the jurisdiction intends to incorporate this Plan update into planning mechanisms over the next five (5) years. The capability assessment presented in Section 4 of this Annex identifies codes, plans, and programs that provide opportunities for integration. **Table 15** outlines planning mechanisms/initiatives that do not currently integrate the goals and recommendations of this Plan but provide opportunities to do so in the future.

**Table 15. Potential Future Integration**

Planning Initiative	Potential Integration Description
Comprehensive Plan	A review of this Hazard Mitigation Plan (2025 update) will be integrated in the five (5) year review of the Town’s Comprehensive Plan. Efforts will be made to make hazardous areas more apparent and to ensure they receive further scrutiny by municipal boards when considering development.
Stormwater Management Program	The Town of Manlius is a Municipal Separate Storm Sewer System (MS4) regulated community with a formal Stormwater Management Program. The Planning and Development Department will integrate updated standards and guidelines from this Hazard Mitigation Plan (2025 update) into the MS4 process and Stormwater management Program.
Ordinances	Hazard mitigation and resilience could be integrated into future updates of the zoning, building, subdivision, and stormwater management ordinances to inform appropriate use of property within the Town. Portions of this Hazard Mitigation Plan should be reviewed to consider any future improvements to the codes, if applicable.
Local Budget	The Town includes a line item for mitigation projects/activities in both the municipal and capital improvement budgets.

The Town’s Local Planning Team will identify all relevant planning initiatives scheduled for update in the next year and during the annual update process of the Hazard Mitigation Plan. Additionally, the Local Planning Team will identify opportunities to integrate key elements of the Hazard Mitigation Plan, specifically relevant strategies, into the planning initiatives. Mitigation actions were identified to promote plan integration in future revisions of this Plan.



## 7. SIGNIFICANT HAZARD PAST EVENTS

A complete risk assessment, including past incidents, for each identified hazard of concern, can be found in **Volume 1** of this Plan. A summary of past events is provided under each hazard profile and includes a chronology of events that have affected the County and its municipalities.

## 8. HAZARD VULNERABILITY AND IMPACT ASSESSMENT

Exposure and vulnerability to certain hazards affect the entire County, and others are geographically defined. Although the entire County may be vulnerable to these hazards, their impacts may vary based on existing community conditions (e.g., underserved populations or those with access and functional needs may be more susceptible under certain conditions).

**Table 16** outlines the *unique vulnerabilities and impacts* for the Town of Manlius and addresses only the hazards relevant to the jurisdiction. A complete risk assessment for each identified hazard of concern is in **Volume 1** of this Plan. Hazard mapping can be found in **Appendix A** of this Annex.

**Table 16. Hazard Vulnerability and Impact Assessment**

Hazard	Vulnerabilities and Impacts
<b>Drought</b>	The Local Planning Team determined that the Town does not have unique vulnerabilities and impacts to drought; rather, the jurisdiction’s vulnerability and impacts are consistent with those experienced throughout the County.
<b>Earthquake</b>	The Local Planning Team determined that the Town does not have unique vulnerabilities and impacts to earthquake events; rather, the jurisdiction’s vulnerability and impacts are consistent with those experienced throughout the County.
<b>Heat Wave/Extreme Heat</b>	The Local Planning Team determined that the Town does not have unique vulnerabilities and impacts to heat wave/extreme heat events; rather, the jurisdiction’s vulnerability and impacts are consistent with those experienced throughout the County.
<b>Flood</b> <i>(riverine, flash/urban, ice jam, dam and levee failure)</i>	<p>The following areas within the Town are vulnerable to recurring flooding:</p> <ul style="list-style-type: none"> <li>• Cranebrook</li> <li>• Bishops Brook</li> <li>• Falcon View</li> <li>• Sugarland</li> <li>• South Eagle Village</li> <li>• North Eagle Village</li> <li>• Duguid Road</li> <li>• Hoag Lane/Muirfield</li> <li>• Long Meadow Subdivision</li> <li>• Troop K and 173</li> <li>• Maricarol Lane</li> <li>• Macclenthen Road</li> <li>• 100 Block of the Homewood neighborhood</li> </ul>



Hazard	Vulnerabilities and Impacts
<b>Geological Hazards</b> <i>(landslides, land subsidence, mudboils)</i>	The Local Planning Team determined that the Town does not have unique vulnerabilities and impacts to geological hazards; rather, the jurisdiction’s vulnerability and impacts are consistent with those experienced throughout the County.
<b>Harmful Algal Bloom</b>	The Local Planning Team determined that the Town does not have unique vulnerabilities and impacts to harmful algal blooms; rather, the jurisdiction’s vulnerability and impacts are consistent with those experienced throughout the County.
<b>Invasive Species and Infestation</b> <i>(Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases)</i>	The Local Planning Team determined that the Town does not have unique vulnerabilities and impacts to invasive species and infestation; rather, the jurisdiction’s vulnerability and impacts are consistent with those experienced throughout the County.
<b>Severe Weather</b> <i>(severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm)</i>	The Local Planning Team determined that the Town does not have unique vulnerabilities and impacts to severe weather; rather, the jurisdiction’s vulnerability and impacts are consistent with those experienced throughout the County.
<b>Winter Weather</b> <i>(blizzards, heavy snow, ice storms, cold wave/extreme cold, nor’easter)</i>	The Local Planning Team determined that the Town does not have unique vulnerabilities and impacts to winter weather; rather, the jurisdiction’s vulnerability and impacts are consistent with those experienced throughout the County.
<b>Wildfire</b> <i>(wildfire smoke)</i>	The Local Planning Team determined that the Town does not have unique vulnerabilities and impacts to wildfire; rather, the jurisdiction’s vulnerability and impacts are consistent with those experienced throughout the County.

The Town evaluated whether vulnerability in hazard-prone areas had increased, decreased, or remained the same for each natural hazard identified in this Hazard Mitigation Plan. Climate change, changes in population, infrastructure expansion, and economic shifts that can affect vulnerability were considered. For example, if planned development is in an identified hazard area or is not built to the updated building codes, it may increase the community’s vulnerability to future hazards and disasters. On the other hand, if development occurred with mitigation practices in place, the vulnerability may have remained the same or decreased. Additionally, shifting demographics (e.g., underserved population) were taken into consideration.

Table 17 outlines whether climate change has increased or decreased the Town’s vulnerability (i.e., exposure) and impact to each natural hazard over the past five (5) years, and the effect of climate change on the future probability of occurrence and impacts from each natural hazard.

**Table 17. Climate Change Current and Future Vulnerability and Impact**

Hazard	Vulnerability and Impact
<i>Current Vulnerability and Impact</i>	
Drought	Increased
Earthquake	Remained the Same
Heat Wave/Extreme Heat	Increased
Flood <i>(riverine, flash/urban, ice jam, dam and levee failure)</i>	Increased
Geological Hazards <i>(landslides, land subsidence, mudboils)</i>	Remained the Same
Harmful Algal Bloom	Remained the Same
Invasive Species and Infestation <i>(Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases)</i>	Remained the Same



Hazard	Vulnerability and Impact
Severe Weather ( <i>severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm</i> )	Increased
Winter Weather ( <i>blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter</i> )	Decreased
Wildfire ( <i>wildfire smoke</i> )	Remained the Same
<i>Future Vulnerability and Impact</i>	
Drought	Increase
Earthquake	No Change Anticipated
Heat Wave/Extreme Heat	Increase
Flood ( <i>riverine, flash/urban, ice jam, dam and levee failure</i> )	Increase
Geological Hazards ( <i>landslides, land subsidence, mudboils</i> )	No Change Anticipated
Harmful Algal Bloom	No Change Anticipated
Invasive Species and Infestation ( <i>Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases</i> )	No Change Anticipated
Severe Weather ( <i>severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm</i> )	Increase
Winter Weather ( <i>blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter</i> )	Decrease
Wildfire ( <i>wildfire smoke</i> )	No Change Anticipated

**Table 18** outlines whether changes in population within the Town over the past five (5) years have increased or decreased the vulnerability (i.e., exposure) and impact to these natural hazards, and the anticipated effects changes in population may have on the future probability of occurrence and impacts from these natural hazards.

**Table 18. Changes in Population, Current and Future Vulnerability and Impact**

Hazard	Vulnerability and Impact
<i>Current Vulnerability and Impact</i>	
Drought	Remained the Same
Earthquake	Remained the Same
Heat Wave/Extreme Heat	Remained the Same
Flood ( <i>riverine, flash/urban, ice jam, dam and levee failure</i> )	Increased
Geological Hazards ( <i>landslides, land subsidence, mudboils</i> )	Remained the Same
Harmful Algal Bloom	Remained the Same
Invasive Species and Infestation ( <i>Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases</i> )	Remained the Same
Severe Weather ( <i>severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm</i> )	Remained the Same
Winter Weather ( <i>blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter</i> )	Remained the Same
Wildfire ( <i>wildfire smoke</i> )	Remained the Same
<i>Future Vulnerability and Impact</i>	
Drought	No Change Anticipated
Earthquake	No Change Anticipated
Heat Wave/Extreme Heat	No Change Anticipated



Hazard	Vulnerability and Impact
Flood ( <i>riverine, flash/urban, ice jam, dam and levee failure</i> )	Increase
Geological Hazards ( <i>landslides, land subsidence, mudboils</i> )	No Change Anticipated
Harmful Algal Bloom	No Change Anticipated
Invasive Species and Infestation ( <i>Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases</i> )	No Change Anticipated
Severe Weather ( <i>severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm</i> )	No Change Anticipated
Winter Weather ( <i>blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter</i> )	No Change Anticipated
Wildfire ( <i>wildfire smoke</i> )	No Change Anticipated

Table 19 outlines whether development over the past five (5) years has increased or decreased the Town’s vulnerability (i.e., exposure) and impact to these natural hazards, and the anticipated effects changes in development may have on the future probability of occurrence and impacts from these natural hazards.

**Table 19. Changes in Development: Current and Future Vulnerability and Impact**

Hazard	Vulnerability and Impact
<b>Current Vulnerability and Impact</b>	
Drought	Remained the Same
Earthquake	Remained the Same
Heat Wave/Extreme Heat	Remained the Same
Flood ( <i>riverine, flash/urban, ice jam, dam and levee failure</i> )	Increase
Geological Hazards ( <i>landslides, land subsidence, mudboils</i> )	Remained the same
Harmful Algal Bloom	Remained the Same
Invasive Species and Infestation ( <i>Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases</i> )	Remained the Same
Severe Weather ( <i>severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm</i> )	Remained the Same
Winter Weather ( <i>blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter</i> )	Remained the Same
Wildfire ( <i>wildfire smoke</i> )	Remained the Same
<b>Future Vulnerability and Impact</b>	
Drought	No Change Anticipated
Earthquake	No Change Anticipated
Heat Wave/Extreme Heat	No Change Anticipated
Flood ( <i>riverine, flash/urban, ice jam, dam and levee failure</i> )	Increase
Geological Hazards ( <i>landslides, land subsidence, mudboils</i> )	No Change Anticipated
Harmful Algal Bloom	No Change Anticipated
Invasive Species and Infestation ( <i>Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases</i> )	No Change Anticipated
Severe Weather ( <i>severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm</i> )	No Change Anticipated



Hazard	Vulnerability and Impact
Winter Weather ( <i>blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter</i> )	No Change Anticipated
Wildfire ( <i>wildfire smoke</i> )	No Change Anticipated

### 8.1. Future Major Assets

Community assets should include anything that is important to a community's character and function. Assets include people (i.e., underserved population); structures (i.e., new and existing buildings); community lifelines and other critical facilities; natural, historic, and cultural resources; and the economy and other activities that have value to the community. Although all assets may be affected by the hazards identified in this Hazard Mitigation Plan, the jurisdiction has identified future major assets that may be more vulnerable and impacted by these hazards.

- The Town anticipates a significant amount of development over the next five (5) years, including multiple high density apartments and construction of a new Town facility. However, any new assets (e.g., new construction in hazard-prone areas) will be built to comply with the latest building codes and standards, and will be mitigated to protect them from identified and anticipated hazards, especially those expected to increase due to climate change.

## 9. CRITICAL FACILITIES FLOOD RISK

New York State Department of Environmental Conservation (NYSDEC) Title 6, Chapter V, Subchapter A, Part 502 sets forth local floodplain management criteria for State projects located within 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 built in accordance with certain mitigation specifications, including being raised two (2) feet above the Base Flood Elevation (BFE).<sup>7</sup> While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding.

Jurisdictions must identify all critical facilities, assess their vulnerabilities, and ensure they are protected against a 0.2% chance (500-year) flood event. Critical facilities that are located in an SFHA and/or have been previously flooded must be protected against a repeat of that flood or the 0.2% chance flood event, whichever provides the greater protection. The Plan must document that those critical facilities are protected to a 0.2% flood event, or the previous worst-case flood event. For those that do not meet this level of protection, the Plan must include a mitigation action that meets or exceeds this criterion, or explain why it is not feasible to do so.<sup>8</sup>

Table 20 identifies critical facilities in the community located in the 100-year and 500-year floodplain.

**Table 20. Potential Flood Losses to Critical Facilities**

Name	Address	Type	Exposure		Potential Loss from 100-Year Flood Event		Facility Protected	Addressed by Proposed Action
			100-Year	500-Year	% Structure Damage	% Content Damage		
Onondaga County Sheriff's Office, Corrections Department East Substation	308 Towne Drive Fayetteville, NY 13066	Law Enforcement		X	-	-	Yes	N/A

<sup>7</sup> New York State Department of Environmental Conservation. (n.d.). Chapter V – Resource Management Services. Retrieved from <https://dec.ny.gov/regulatory/regulations/chapter-v>.

<sup>8</sup> New York State Division of Homeland Security and Emergency Services. (2022). 2022 New York State Hazard Mitigation Planning Standards. Retrieved from <https://www.dhSES.ny.gov/system/files/documents/2023/11/2022-nys-mitigation-planning-standards-final.pdf>



Name	Address	Type	Exposure		Potential Loss from 100-Year Flood Event		Facility Protected	Addressed by Proposed Action
			100-Year	500-Year	% Structure Damage	% Content Damage		
Town of Manlius Public Works Building	5970 Clemons Road East Syracuse, NY 13057	Government Building	X	X	0%	0%	Yes	N/A
OD-1690	Minoa Road Kirkville, NY 13082	Well	X	X	1.4%	-	No	TMA-14
Meadowbrook Sewage Treatment Plant <i>(owned by the Onondaga County Department of Water Environment Protection)</i>	7530 Manlius Center Road Kirkville, NY 13082	Wastewater Treatment Plant	X	X	0%	0%	No	TMA-15

## 10. HAZARD RISK RANKING

**Table 21** presents the local hazard ranking for the Town of Manlius of all hazards of concern listed in **Volume 1** of this Plan. This ranking summarizes how hazards vary for this jurisdiction. As thoroughly described in **Volume 1** of this 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. For further details on how the probability, extent, vulnerability, and impact factors in **Table 21** were calculated, please refer to Section 4.3 in **Volume 1** of this Plan.

It is important to note that the sub hazards for severe weather (i.e., strong winds/damaging winds, severe thunderstorms, tropical storm/hurricane, hail, and tornado), geological hazards (i.e., landslide, land subsidence, and mudboils), flood (i.e., riverine/creek flooding and ice jam, and urban/flash flooding), and winter weather (i.e., blizzards, lake effect snow, nor'easter, and ice storm, and cold wave/extreme cold) were individually ranked in the hazard risk ranking; however, severe weather, geological hazards, flood, and winter weather are each considered as the main hazard throughout this Annex and **Volume 1**.

**Table 21. Town of Manlius Hazard Risk Ranking**

Hazard Event	Probability Factor	Sum of Weighted Extent Factors	Sum of Weighted Vulnerability Factors	Sum of Weighted Impact Factors	Consequence Score	Total Risk Score <i>(Probability x Consequence)</i>
Flood (Riverine/Creek, Ice Jam)	3	12	11	29	52	73
Flood (Urban/Flash Flood)	3	12	11	29	52	73
Winter Weather (Blizzards, Lake Effect Snow, Nor'easter, Ice Storm)	3	12	14	21	47	67
Severe Thunderstorm <i>(Severe Weather)</i>	3	12	16	14	42	61
Strong Winds/ Damaging Winds <i>(Severe Weather)</i>	3	12	11	16	39	57
Cold Wave/Extreme Cold <i>(Winter Weather)</i>	2	12	14	21	47	48
Heat Wave/Extreme Heat	2	9	11	19	39	41



Hazard Event	Probability Factor	Sum of Weighted Extent Factors	Sum of Weighted Vulnerability Factors	Sum of Weighted Impact Factors	Consequence Score	Total Risk Score (Probability x Consequence)
Drought	2	12	12	13	37	39
Invasive Species and Infestation	2	9	8	18	35	37
Tropical Storm/Hurricane (Severe Weather)	1	9	16	24	49	27
Dam and Levee Failure (Flood)	1	12	11	24	47	26
Hail (Severe Weather)	1	6	16	14	36	21
Earthquake	1	6	16	12	34	20
Tornado (Severe Weather)	1	6	6	22	34	20
Land Subsidence (Geological Hazards)	1	9	11	14	34	20
Landslide (Geological Hazards)	1	6	6	18	30	18
Harmful Algal Bloom	1	6	6	16	28	17
Mudboils (Geological Hazards)	1	3	6	13	22	14
Wildfire (Wildfire Smoke)	1	3	6	11	20	13

**Consequence:** Sum of all weighted factors.  
**Extent:** Sum of the weighted Extent factors.  
**Vulnerability:** Sum of the weighted Vulnerability factors.

**Impact:** Sum of the weighted Impact factors.  
**Total Risk Score\*** = Probability x Consequence  
 \* Normalized to 100

**Total Risk Score Legend**

Classification	Probability Factor	Extent	Vulnerability	Impact	Consequence Score	Total Risk Score
Low (L)	1	0 – 6	0 – 6	0 – 12	0 – 24	0 – 24
Medium (M)	2	7 – 12	7 – 12	13 – 26	25 – 50	25 – 54
High (H)	3	13 – 18	13 – 18	27 – 39	51 – 75	55 and above

The **legend**—specifically the assignment of low, medium, and high—provides an additional means to qualitatively assess the probability factor, sum of weighted factors, and the total risk scores for each hazard. The **Consequence Score** represents the sum of the Extent, Vulnerability, and Impact Factors. The **Total Risk Score** is a measure of Probability and Consequence.



## 11. MITIGATION ACTIONS

This section includes the mitigation actions developed to address the risks and vulnerabilities to the hazards identified in this Plan. This Plan serves only to recommend mitigation measures based on the potential for risk reduction and available funding. Implementation of mitigation actions is dependent on risk reduction priorities, feasibility, and available funding. It is also dependent on the cooperation and support of the jurisdiction and/or department responsible for each action item. Additionally, all mitigation actions identified in the 2019 update or before were updated accordingly. Any new mitigation actions are listed as *New* (under Project Status).

The Town of Manlius agreed on **20** mitigation actions that apply to the jurisdiction’s properties for which it has jurisdictional responsibility and authority. One (1) mitigation action has been completed. A summary of the Town’s mitigation actions status is listed in **Table 22**.

**Note:** The mitigation actions outlined in this Plan are designed only to address those natural hazards that received a risk ranking of *medium* or *high* during the hazard risk assessment (**Table 21**). Hazards that ranked *low* (earthquakes, geological hazards, and wildfires) will not have specific mitigation actions detailed in this document.

**Table 22. Town of Manlius Mitigation Action Summary**

Status		Mitigation Action Total	
Continuous		11	
In Progress/Not Yet Completed		2	
No Progress/Not Yet Started		1	
New		6	
<b>TOTAL</b>		<b>20</b>	
Complete		1	
Discontinued		0	
Mitigation Actions per Hazard			
Drought	6	Harmful Algal Bloom	5
Earthquake	N/A	Invasive Species and Infestation <i>(Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases)</i>	5
Heat Wave/Extreme Heat	6	Severe Weather <i>(severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm, nor’easter)</i>	16
Flood <i>(riverine, flash/urban, ice jam, dam and levee failure)</i>	17	Winter Weather <i>(blizzards, heavy snow, ice storms, cold wave/extreme cold)</i>	6
Geological Hazards <i>(landslides, land subsidence, mudboils)</i>	N/A	Wildfire <i>(wildfire smoke)</i>	N/A

A detailed explanation of the Mitigation Strategy can be found in Section 5 of **Volume 1**.



<b>Mitigation Action</b>	Partner with the Town of Sullivan (Madison County) to ensure that the Chittenango Creek is clear of log jams and problem trees.				
<b>Action Number</b>	TMN-1	<b>Goal(s) Addressed</b>	1, 2, 4, 5	<b>Prioritization Score</b>	13/15
<b>Year Added to Plan</b>	2013	<b>Timeline</b> <i>(estimated)</i>	Ongoing	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather				
<b>Project Status</b>	Continuous	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits</b> <i>(Loss Avoided)</i>	High				
<b>Lead Agency / Organization</b>	Town of Manlius Highway Department	<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	Town of Sullivan Highway Department		
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility</b> <i>(Critical Facility located in 1% floodplain?)</i>	No	<b>Additional Details</b> <i>(optional)</i>			



<b>Mitigation Action</b>	Participate in Repetitive Loss and Severe Repetitive Loss outreach and education activities for property owners. This outreach will increase awareness of flood risks along streams and creeks within the Town, and provide greater awareness of safety measures to implement and available flood insurance programs.				
<b>Action Number</b>	TMN-2	<b>Goal(s) Addressed</b>	2, 3	<b>Prioritization Score</b>	N/A
<b>Year Added to Plan</b>	2013	<b>Timeline (estimated)</b>	N/A	<b>Implementation Priority</b>	N/A
<b>Hazard(s) Mitigated</b>	Flood				
<b>Project Status</b>	Complete	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits (Loss Avoided)</b>	N/A				
<b>Lead Agency / Organization</b>	Town of Manlius Planning & Development Department (Floodplain Administrator)	<b>Supporting Agency / Organization (If applicable)</b>		N/A	
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	N/A	<b>Potential Funding Source</b>	N/A		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	N/A	<b>Additional Details (optional)</b>			



<b>Mitigation Action</b>	<p>Conduct and facilitate community and public education and outreach for residents and businesses to include, but not limited to, the following, to promote and effect natural hazard risk reduction:</p> <ul style="list-style-type: none"> <li>• Provide and maintain links to the Onondaga County Hazard Mitigation Plan website, and regularly post notices on the municipal homepage referencing the Onondaga County Hazard Mitigation Plan webpages.</li> <li>• 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.</li> <li>• Use the Town’s e-mail notification systems and newsletters to educate the public on flood insurance better, the availability of mitigation grant funding, and personal natural hazard risk reduction measures.</li> <li>• Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.</li> </ul>				
	<b>Action Number</b>	TMN-3	<b>Goal(s) Addressed</b>	2	<b>Prioritization Score</b>
<b>Year Added to Plan</b>	2013	<b>Timeline</b> <i>(estimated)</i>	Ongoing	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>		Drought, Heat Wave/Extreme Heat, Flood, Harmful Algal Bloom, Invasive Species and Infestation, Severe Weather, Winter Weather			
<b>Project Status</b>		Continuous	If <i>Discontinued</i> , provide reason.	N/A	
<b>Benefits</b> <i>(Loss Avoided)</i>		Low			
<b>Lead Agency / Organization</b>	Town of Manlius Planning & Development Department (Floodplain Administrator)		<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	Onondaga County Department of Planning	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility</b> <i>(Critical Facility located in 1% floodplain?)</i>	No	<b>Additional Details</b> <i>(optional)</i>			



<b>Mitigation Action</b>	Where appropriate, support retrofitting or relocation of structures in high-hazard areas, prioritizing structures that have experienced repetitive losses.				
<b>Action Number</b>	TMN-4	<b>Goal(s) Addressed</b>	2, 3, 6	<b>Prioritization Score</b>	13/15
<b>Year Added to Plan</b>	2013	<b>Timeline</b> <i>(estimated)</i>	Ongoing	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Drought, Heat Wave/Extreme Heat, Flood, Harmful Algal Bloom, Invasive Species and Infestation, Severe Weather, Winter Weather				
<b>Project Status</b>	Continuous	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits</b> <i>(Loss Avoided)</i>	High				
<b>Lead Agency / Organization</b>	Town of Manlius Planning & Development Department, Town of Manlius Town Board	<b>Supporting Agency / Organization</b> <i>(If applicable)</i>		N/A	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	N/A				
<b>Estimated Cost</b>	High	<b>Potential Funding Source</b>	General Fund (Staff Time), HMGP, FMA		
<b>Critical Facility</b> <i>(Critical Facility located in 1% floodplain?)</i>	No	<b>Additional Details</b> <i>(optional)</i>	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.		



<b>Mitigation Action</b>	Actively support and participate in the implementation, monitoring, maintenance, and updating of this Hazard Mitigation Plan, as outlined and defined in Volume 1.				
<b>Action Number</b>	TMN-5	<b>Goal(s) Addressed</b>	1, 2, 3, 4, 5, 6	<b>Prioritization Score</b>	15/15
<b>Year Added to Plan</b>	2013	<b>Timeline (estimated)</b>	Ongoing	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Drought, Heat Wave/Extreme Heat, Flood, Harmful Algal Bloom, Invasive Species and Infestation, Severe Weather, Winter Weather				
<b>Project Status</b>	Continuous	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits (Loss Avoided)</b>	High				
<b>Lead Agency / Organization</b>	Town of Manlius Planning & Development Department, Town of Manlius Town Board	<b>Supporting Agency / Organization (If applicable)</b>		N/A	
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	No	<b>Additional Details (optional)</b>			



<b>Mitigation Action</b>	<p>Continue to maintain good standing and compliance under the National Flood Insurance Program (NFIP) through implementation and enforcement of floodplain management requirements that, at a minimum, meet the NFIP requirements. These include:</p> <ul style="list-style-type: none"> <li>• Enforce the flood damage prevention ordinance (e.g., regulating all new and substantially improved construction in Special Hazard Flood Areas).</li> <li>• Participate in floodplain identification and mapping updates.</li> <li>• Provide public assistance/outreach on floodplain requirements and impacts.</li> </ul>				
<b>Action Number</b>	TMN-6	<b>Goal(s) Addressed</b>	1, 2, 3, 4, 5, 6	<b>Prioritization Score</b>	15/15
<b>Year Added to Plan</b>	2013	<b>Timeline</b> <i>(estimated)</i>	Ongoing	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>		Flood, Severe Weather			
<b>Project Status</b>		Continuous	If <i>Discontinued</i> , provide reason.	N/A	
<b>Benefits</b> <i>(Loss Avoided)</i>		Medium			
<b>Lead Agency / Organization</b>		Town of Manlius Planning & Development Department (Floodplain Administrator)	<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	N/A	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>		N/A			
<b>Estimated Cost</b>		Low	<b>Potential Funding Source</b>	General Fund (Staff Time)	
<b>Critical Facility</b> <i>(Critical Facility located in 1% floodplain?)</i>		No	<b>Additional Details</b> <i>(optional)</i>		



<b>Mitigation Action</b>	Develop, enhance, and implement the Town's existing emergency plans.				
<b>Action Number</b>	TMN-7	<b>Goal(s) Addressed</b>	1, 6	<b>Prioritization Score</b>	15/15
<b>Year Added to Plan</b>	2013	<b>Timeline</b> <i>(estimated)</i>	Ongoing	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Drought, Heat Wave/Extreme Heat, Flood, Harmful Algal Bloom, Invasive Species and Infestation, Severe Weather, Winter Weather				
<b>Project Status</b>	Continuous	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits</b> <i>(Loss Avoided)</i>	High				
<b>Lead Agency / Organization</b>	Town of Manlius Critical Response Committee	<b>Supporting Agency / Organization</b> <i>(If applicable)</i>		N/A	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility</b> <i>(Critical Facility located in 1% floodplain?)</i>	No	<b>Additional Details</b> <i>(optional)</i>			



<b>Mitigation Action</b>	Develop, enhance, and maintain mutual aid agreements with surrounding municipalities and counties.				
<b>Action Number</b>	TMN-8	<b>Goal(s) Addressed</b>	1, 5, 6	<b>Prioritization Score</b>	15/15
<b>Year Added to Plan</b>	2013	<b>Timeline</b> <i>(estimated)</i>	Ongoing	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Drought, Heat Wave/Extreme Heat, Flood, Harmful Algal Bloom, Invasive Species and Infestation, Severe Weather, Winter Weather				
<b>Project Status</b>	Continuous	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits</b> <i>(Loss Avoided)</i>	High				
<b>Lead Agency / Organization</b>	Town of Manlius Town Board, Town of Manlius Police Department	<b>Supporting Agency / Organization</b> <i>(If applicable)</i>		N/A	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility</b> <i>(Critical Facility located in 1% floodplain?)</i>	No	<b>Additional Details</b> <i>(optional)</i>			



<b>Mitigation Action</b>	Participate in the Community Rating System (CRS) to further manage flood risk and reduce flood insurance premiums for National Flood Insurance Program (NFIP) policyholders within the Town of Manlius.				
<b>Action Number</b>	TMN-9	<b>Goal(s) Addressed</b>	1, 2, 3, 6	<b>Prioritization Score</b>	15/15
<b>Year Added to Plan</b>	2013	<b>Timeline (estimated)</b>	6 Months to 1 Year	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather				
<b>Project Status</b>	No Progress/Not Yet Started	<i>If Discontinued, provide reason.</i>	N/A		
<b>Benefits (Loss Avoided)</b>	High				
<b>Lead Agency / Organization</b>	Town of Manlius Planning & Development Department (Floodplain Administrator)	<b>Supporting Agency / Organization (If applicable)</b>	N/A		
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	No	<b>Additional Details (optional)</b>			



<b>Mitigation Action</b>	Assist and support property owners with drainage issues in identifying and applying for eligible mitigation grant funding.				
<b>Action Number</b>	TMN-10	<b>Goal(s) Addressed</b>	1, 2, 3, 5	<b>Prioritization Score</b>	8/15
<b>Year Added to Plan</b>	2013	<b>Timeline</b> <i>(estimated)</i>	Ongoing	<b>Implementation Priority</b>	Medium
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather				
<b>Project Status</b>	Continuous	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits</b> <i>(Loss Avoided)</i>	Low				
<b>Lead Agency / Organization</b>	Town of Manlius Planning & Development Department (Floodplain Administrator)	<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	N/A		
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility</b> <i>(Critical Facility located in 1% floodplain?)</i>	No	<b>Additional Details</b> <i>(optional)</i>			



<b>Mitigation Action</b>	Implement local drainage surveys throughout the Town.				
<b>Action Number</b>	TMN-11	<b>Goal(s) Addressed</b>	1, 3	<b>Prioritization Score</b>	13/15
<b>Year Added to Plan</b>	2013	<b>Timeline</b> <i>(estimated)</i>	Ongoing	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather				
<b>Project Status</b>	Continuous	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits</b> <i>(Loss Avoided)</i>	Medium				
<b>Lead Agency / Organization</b>	Town of Manlius Highway Department	<b>Supporting Agency / Organization</b> <i>(If applicable)</i>		N/A	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	N/A				
<b>Estimated Cost</b>	Medium	<b>Potential Funding Source</b>	General Fund (Staff Time), Stormwater Operating Budget		
<b>Critical Facility</b> <i>(Critical Facility located in 1% floodplain?)</i>	No	<b>Additional Details</b> <i>(optional)</i>			



<b>Mitigation Action</b>	Ensure the Ley Creek – North Branch and its culverts remain clear of debris, structurally sound, and operable with continuous inspection activities.				
<b>Action Number</b>	TMN-12	<b>Goal(s) Addressed</b>	1, 5	<b>Prioritization Score</b>	12/15
<b>Year Added to Plan</b>	2013	<b>Timeline (estimated)</b>	Ongoing	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather				
<b>Project Status</b>	Continuous	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits (Loss Avoided)</b>	High				
<b>Lead Agency / Organization</b>	Town of Manlius Highway Department	<b>Supporting Agency / Organization (If applicable)</b>	Onondaga County Department of Water Environment Protection, Beartrap-Ley Creek Drainage District		
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	No	<b>Additional Details (optional)</b>			



<b>Mitigation Action</b>	Conduct a detailed topographic study in the identified critical areas of the Beartrap-Ley Creek Drainage District to determine which individual properties are most at risk, to assist with determining mitigation actions.				
<b>Action Number</b>	TMN-13	<b>Goal(s) Addressed</b>	1, 5	<b>Prioritization Score</b>	14/15
<b>Year Added to Plan</b>	2013	<b>Timeline (estimated)</b>	Ongoing	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather				
<b>Project Status</b>	Continuous	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits (Loss Avoided)</b>	Medium				
<b>Lead Agency / Organization</b>	Town of Manlius Planning & Development Department	<b>Supporting Agency / Organization (If applicable)</b>		N/A	
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	Medium	<b>Potential Funding Source</b>	General Fund (Staff Time), HMGP, FMA		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	No	<b>Additional Details (optional)</b>	The Beartrap-Ley Creek Drainage District is flat and heavily urbanized making the low-lying areas extremely vulnerable to flooding that approach or exceed five (5) year storms.		



<b>Mitigation Action</b>	Contact the facilities manager for the OD-1690 Well to discuss options for retrofitting the well to the 500-year flood level.				
<b>Action Number</b>	TMN-14	<b>Goal(s) Addressed</b>	1, 3	<b>Prioritization Score</b>	10/15
<b>Year Added to Plan</b>	2019	<b>Timeline</b> <i>(estimated)</i>	4 to 5 Years	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather				
<b>Project Status</b>	In Progress/No Yet Completed	<i>If Discontinued, provide reason.</i>	N/A		
<b>Benefits</b> <i>(Loss Avoided)</i>	Low				
<b>Lead Agency / Organization</b>	Town of Manlius Planning & Development Department (Floodplain Administrator)	<b>Supporting Agency / Organization</b> <i>(If applicable)</i>	N/A		
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility</b> <i>(Critical Facility located in 1% floodplain?)</i>	Yes	<b>Additional Details</b> <i>(optional)</i>			



<b>Mitigation Action</b>	Retrofit the Meadowbrook Sewage Treatment Plant (owned by the Onondaga County Department of Water Environment Protection) to the 500-year flood level.				
<b>Action Number</b>	TMN-15	<b>Goal(s) Addressed</b>	1, 2, 6	<b>Prioritization Score</b>	9/15
<b>Year Added to Plan</b>	2019	<b>Timeline (estimated)</b>	7 to 10 Years	<b>Implementation Priority</b>	Medium
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather				
<b>Project Status</b>	In Progress/Not Yet Completed	<i>If Discontinued, provide reason.</i>	N/A		
<b>Benefits (Loss Avoided)</b>	High				
<b>Lead Agency / Organization</b>	Town of Manlius Planning & Development Department (Floodplain Administrator)	<b>Supporting Agency / Organization (If applicable)</b>	Onondaga County Department of Water Environment Protection		
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	High	<b>Potential Funding Source</b>	General Fund (Staff Time), HMGP, FMA, Water Quality Improvement Projects (WQIP) Funds		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	Yes	<b>Additional Details (optional)</b>			



<b>Mitigation Action</b>	Conduct a drainage study of North Eagle Village Road.				
<b>Action Number</b>	TMN-16	<b>Goal(s) Addressed</b>	2, 6	<b>Prioritization Score</b>	1/15
<b>Year Added to Plan</b>	2025	<b>Timeline</b> <i>(estimated)</i>	1 to 2 Years	<b>Implementation Priority</b>	Low
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather				
<b>Project Status</b>	New	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits</b> <i>(Loss Avoided)</i>	Low				
<b>Lead Agency / Organization</b>	Town of Manlius Highway Department	<b>Supporting Agency / Organization</b> <i>(If applicable)</i>		N/A	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time), HMGP, FMA		
<b>Critical Facility</b> <i>(Critical Facility located in 1% floodplain?)</i>	No	<b>Additional Details</b> <i>(optional)</i>			



<b>Mitigation Action</b>	Conduct a Townwide drainage assessment study.				
<b>Action Number</b>	TMN-17	<b>Goal(s) Addressed</b>	2, 3, 4, 5, 6	<b>Prioritization Score</b>	8/15
<b>Year Added to Plan</b>	2025	<b>Timeline (estimated)</b>	2 to 3 Years	<b>Implementation Priority</b>	Medium
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather				
<b>Project Status</b>	New	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits (Loss Avoided)</b>	Medium				
<b>Lead Agency / Organization</b>	Town of Manlius Highway Department	<b>Supporting Agency / Organization (If applicable)</b>	N/A		
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	Medium	<b>Potential Funding Source</b>	General Fund (Staff Time), HMGP, FMA		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	No	<b>Additional Details (optional)</b>			



<b>Mitigation Action</b>	Add drainage infrastructure to the New York State Route 5 corridor to service the 100 block of the Homewood development.				
<b>Action Number</b>	TMN-18	<b>Goal(s) Addressed</b>	1, 4, 6	<b>Prioritization Score</b>	10/15
<b>Year Added to Plan</b>	2025	<b>Timeline</b> <i>(estimated)</i>	2 to 3 Years	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather				
<b>Project Status</b>	New	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits</b> <i>(Loss Avoided)</i>	Medium				
<b>Lead Agency / Organization</b>	Town of Manlius Highway Department, New York State Department of Transportation	<b>Supporting Agency / Organization</b> <i>(If applicable)</i>		N/A	
<b>Additional Participating Jurisdictions</b> <i>(If applicable)</i>	N/A				
<b>Estimated Cost</b>	High	<b>Potential Funding Source</b>	General Fund (Staff Time), HMGP, New York State Assembly State Budget, Senate Capital Funds		
<b>Critical Facility</b> <i>(Critical Facility located in 1% floodplain?)</i>	No	<b>Additional Details</b> <i>(optional)</i>			



<b>Mitigation Action</b>	Implement a strategic, adaptive community-based resilience initiative to build long-term community resilience to drought. The initiative will utilize a multi-channel public outreach campaign to provide residents, businesses, and the agricultural community with practical knowledge and resources needed for drought mitigation strategies (e.g., water conservation, the use of drought-tolerant landscaping).				
<b>Action Number</b>	TMN-19	<b>Goal(s) Addressed</b>	2	<b>Prioritization Score</b>	15/15
<b>Year Added to Plan</b>	2025	<b>Timeline (estimated)</b>	2 to 4 Years	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Drought				
<b>Project Status</b>	New	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits (Loss Avoided)</b>	Low				
<b>Lead Agency / Organization</b>	Town of Manlius Planning and Development Department	<b>Supporting Agency / Organization (If applicable)</b>		N/A	
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	No	<b>Additional Details (optional)</b>			



<b>Mitigation Action</b>	Implement a strategic, adaptive community-based resilience initiative to build long-term community resilience against heat waves/extreme heat events. The initiative will utilize a multi-channel public outreach campaign to educate the public about public health illnesses associated with extreme heat, protective actions, and available resources to reduce risk and exposure during heat waves/extreme heat events. Outreach efforts will specifically target individuals who are particularly vulnerable during heat wave/extreme heat events, including, but not limited to, the elderly, young children, pregnant women, individuals with chronic illnesses, individuals without access to air conditioning, and outdoor workers (e.g., agricultural workers). Additionally, implementing climate adaptation measures, such as identifying community centers that can serve as cooling centers, will also be considered.				
<b>Action Number</b>	TMN-20	<b>Goal(s) Addressed</b>	2	<b>Prioritization Score</b>	15/15
<b>Year Added to Plan</b>	2025	<b>Timeline (estimated)</b>	2 to 4 Years	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Heat Wave/Extreme Heat				
<b>Project Status</b>	New	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits (Loss Avoided)</b>	Low				
<b>Lead Agency / Organization</b>	Town of Manlius Planning and Development Department	<b>Supporting Agency / Organization (If applicable)</b>		N/A	
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	No	<b>Additional Details (optional)</b>			



<b>Mitigation Action</b>	Develop and implement a strategic, adaptive community-based resilience initiative to build long-term community resilience against winter weather events, including extreme cold temperatures (e.g., cold waves) and power outages resulting from winter weather events. The initiative will use a multi-channel public outreach campaign to educate the public about cold-weather illnesses, protective actions, and available resources to reduce risk and exposure during cold wave/extreme cold events. Outreach efforts will specifically target individuals who are particularly vulnerable during winter weather events. Additionally, it will consider implementing climate adaptation measures, such as identifying community centers that can serve as warming centers during winter weather events.				
<b>Action Number</b>	TMN-21	<b>Goal(s) Addressed</b>	2	<b>Prioritization Score</b>	15/15
<b>Year Added to Plan</b>	2025	<b>Timeline (estimated)</b>	2 to 4 Years	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Winter Weather				
<b>Project Status</b>	New	If <i>Discontinued</i> , provide reason.		N/A	
<b>Benefits (Loss Avoided)</b>	Low				
<b>Lead Agency / Organization</b>	Town of Manlius Planning and Development Department	<b>Supporting Agency / Organization (If applicable)</b>		N/A	
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	Low	<b>Potential Funding Source</b>	General Fund (Staff Time)		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	No	<b>Additional Details (optional)</b>			



## APPENDIX A. HAZARD MAPS

These maps are based on the best available data at the time this Plan was prepared and are considered adequate for planning purposes. Maps have been generated only for hazards that can be distinctly represented using available mapping technologies and data, and for which the Town of Manlius has significant vulnerability.

- **Figure 1** illustrates the jurisdiction's planning area boundary.
- **Figure 2** illustrates the critical facilities within the planning area.
- **Figure 3** illustrates the jurisdiction's Special Flood Hazard Area (SFHA), including the Flood Zones and the 500-year floodplain in the planning area. Flood Insurance Rate Maps (FIRMs) display flood zones, floodplain boundaries, and Base Flood Elevation (BFE), which are used for floodplain management, flood insurance ratings, and to determine flood insurance requirements. FIRMs show areas with a 1% chance of flooding each year, commonly known as the 100-year floodplains, and are illustrated as the SFHA (Flood Zones A, AE, and AO on the map). The 500-year floodplains show areas with a 0.2% chance of flooding each year.



Figure 1. Town of Manlius Planning Area

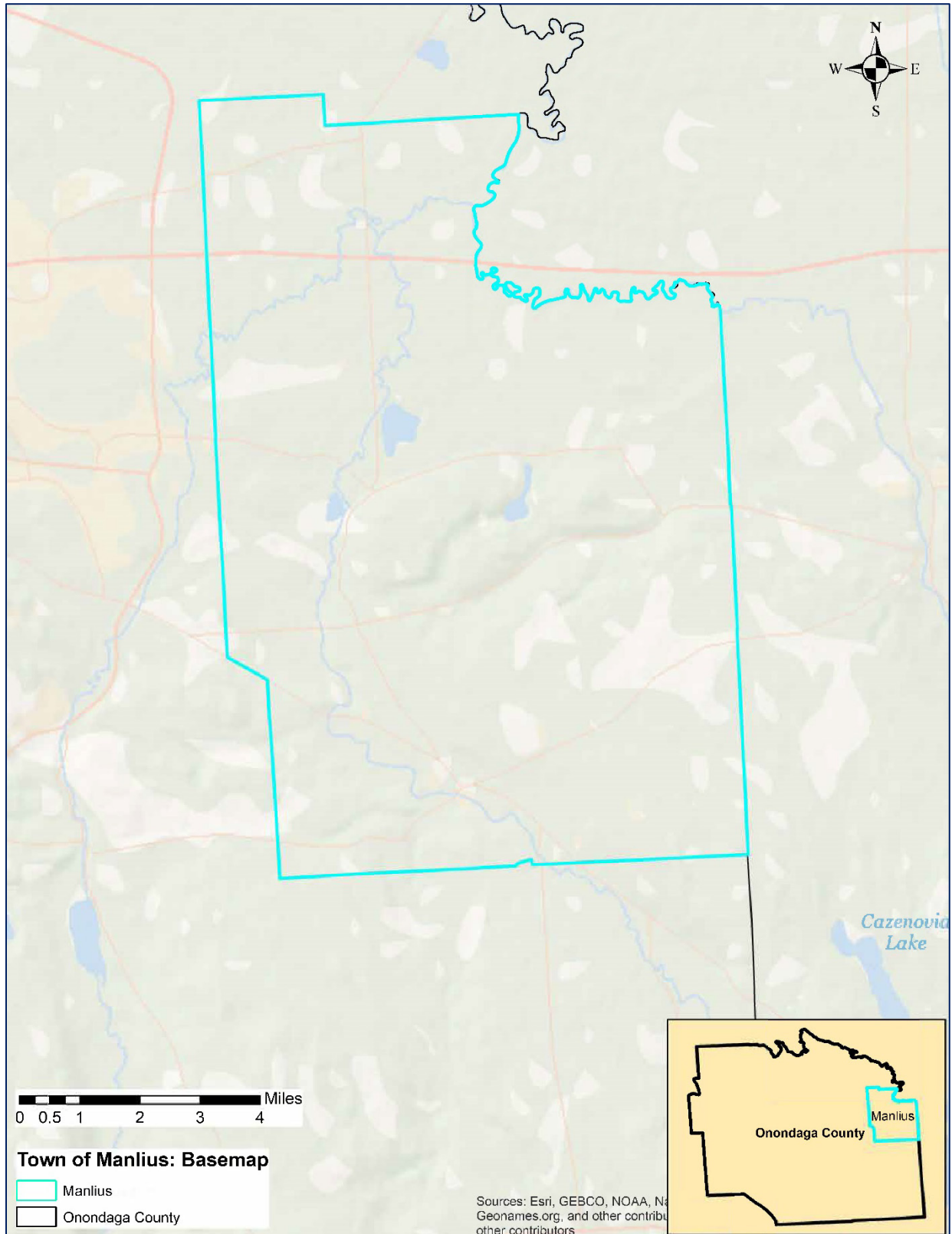




Figure 2. Critical Facilities

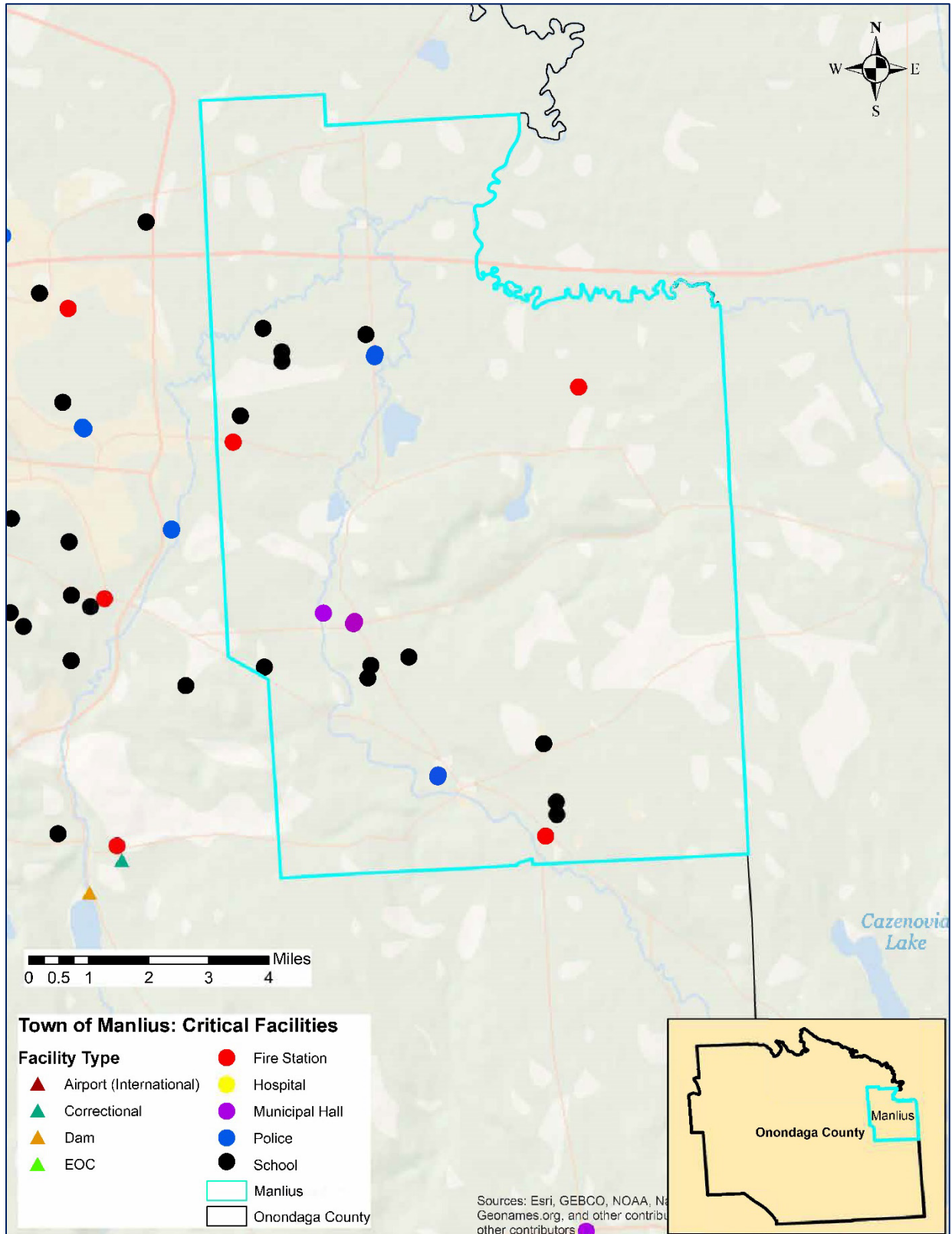
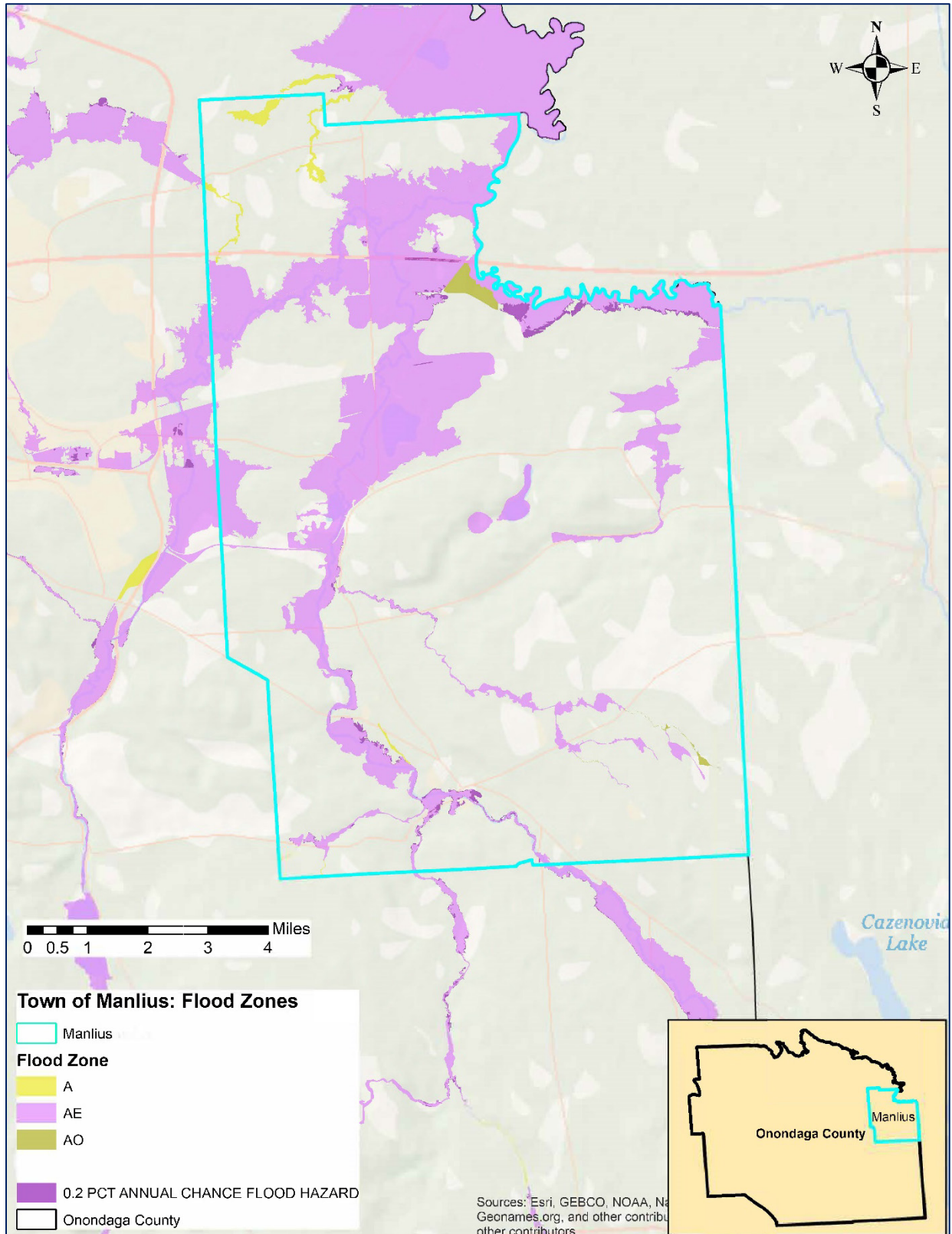




Figure 3. Special Flood Hazard Area





**APPENDIX B. LETTER OF INTENT**

**Statement of Intent to Participate in the  
2024 Onondaga County Multi-Jurisdictional Hazard Mitigation Plan**

The purpose of this letter is to establish commitment from, and a cooperative working relationship between, all participating jurisdictions in the development and implementation of the 2024 Onondaga County Multi-Jurisdictional Hazard Mitigation Plan (HMP). In addition, the intent of this form is to ensure that the Plan update is developed in accordance with Title 44 of the Federal Code of Regulations Part 201.6; that the planning process is conducted in an open manner involving community stakeholders; that it is consistent with each participating jurisdiction’s policies, programs, and authorities; and that it is an accurate reflection of the community’s values.

To meet this requirement and to help reduce the loss of life and damage to property in the event of a natural disaster, our municipality intends to participate in a federally funded grant initiative to update the 2024 Onondaga County Multi-Jurisdictional Hazard Mitigation Plan.

We understand that the planning process will include a limited number of meetings and/or calls between Planning Team representatives and representatives from participating municipalities and agencies. The subject of the meeting(s) will be to:

- Inform participants on the needs and methods for identifying and prioritizing hazards;
- Share information on hazards affecting local jurisdictions;
- Provide information related to local assets, plans/ordinances, hazard events and damages, new development, etc. within the jurisdiction; and
- Determine possible projects to reduce the impact of future incidents involving hazards which are prerequisites to municipalities later applying for hazard mitigation grant funds.

We recognize the importance of having an updated multi-jurisdictional hazard mitigation plan to help safeguard the lives and property of our citizens and commit to participating in this process with Onondaga County.

**Name of Jurisdiction:** Town of Manlius

**Name of Authorized Representative:**

**Primary Point-of-Contact (POC):**

**Name:** Thomas Poitras  
**Title:** Code Enforcement Officer  
**Department:** Planning and Development  
**Phone Number:** 315-637-8619  
**Email:** tpoitras@townofmanlius.org

**Signature of Authorized Representative:**

**Secondary Point-of-Contact (POC):**

**Name:** John Deer  
**Title:** Town Supervisor  
**Department:** Supervisor  
**Phone Number:** 631-875-2572  
**Email:** jdeer@townofmanlius.org

Please return this form to [jefferyharrop@ongov.net](mailto:jefferyharrop@ongov.net), or mail to the Onondaga County Dept. of Planning, 335 Montgomery St, Syracuse, NY 13202. Questions, call Jeff at (315)435-2673.



## APPENDIX C. PLAN ADOPTION

*[Placeholder for adoption documentation after State and FEMA Approval]*