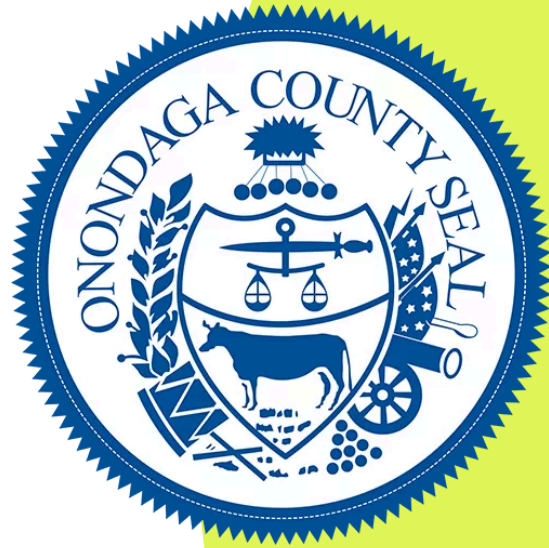


# 2025 Hazard Mitigation Plan

Onondaga County,  
New York

**Town of Spafford  
Annex**





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This Annex details the hazard mitigation elements specific to the Town of Spafford, 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 Spafford. 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 Spafford 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
Larry Nestell	Code Enforcement Officer	Building and Codes Department
Mary Menapace	Member	Zoning Board of Appeals

## 2. MUNICIPAL PROFILE

The Town of Spafford is located on the southwest border of Onondaga County with a total area of 39.2 square miles. The Town’s entire western boundary is formed by the edges of Skaneateles Lake; nearly half of its eastern border is shaped by Otisco Lake; the other half by the towns of Otisco and Tully; to the north, by the towns of Marcellus and Skaneateles; and to the south, by Cortland County. Spafford Creek feeds Otisco Lake in the southeast part of the Town.

There are several communities located within the Town – Borodino (hamlet), Borodino Landing (hamlet), Edgewater Park, Pine Grove (hamlet), South Spafford (hamlet), Spafford (hamlet), Spafford Valley (hamlet), and Woodland (hamlet).

### 2.1. Population

In 2023, the Town of Spafford had a population of 1,754, a 4.7% increase from the estimated 2018 population of 1,675. **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>4</sup>
1,979	1,675	1,754	4.7%	3.1%	26.6%	2.5%

## 2.2. History and Cultural Resources

The Town of Spafford was incorporated in 1811 from portions of the townships of Sempronius, Marcellus, and Tully. The boundaries have since been materially altered. The Town was named after Horatio Gates Spafford, L.L.D., the author of the Gazetteer of New York. The first settler within the current limits of the Town was Gilbert Palmer, who located himself on lot 76 in the fall of 1794.

## 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 Spafford between 2019 and 2023.<sup>5</sup>

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

Type	2019	2020	2021	2022	2023
Single-Family Units	4	8	4	10	13
Multi-Family Units	0	0	0	0	0
2-Family Units	0	0	0	0	0
3-Family Units	0	0	0	0	0
Apartment Units	0	0	0	0	0
<b>Total Units</b>	<b>4</b>	<b>8</b>	<b>4</b>	<b>10</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 geographic and market characteristics to be treated as a single place for purposes of further understanding the county housing market.

The Town of Spafford is in the Lake Region sub-region. This sub-region has a larger proportion of married couples – under 65 years old (37%) and over 65 years old (20%). Total household growth between 2000 and 2020 was 4.3%

<sup>1</sup> United States Census Bureau. (2010). DP05: ACS Demographic and Housing Estimates (2010: 5-Year Estimates Data Profiles). Retrieved from <https://data.census.gov/table/ACSDP5Y2010.DP05?g=060XX00US3606770057>.

<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=060XX00US3606770057>.

<sup>3</sup> United States Census Bureau. (2023). DP05: ACS Demographic and Housing Estimates (2023: 5-Year Estimates Data Profiles). Retrieved from <https://data.census.gov/table/ACSDP5Y2023.DP05?g=060XX00US3606770057>.

<sup>4</sup> United States Census Bureau. (2023). S1701: Poverty Status in the Past 12 Months (2023: ACS 5-Year Estimates Subject Tables). Retrieved from <https://data.census.gov/table/ACSST5Y2023.S1701?g=060XX00US3606770057>.

<sup>5</sup> Data provided by the Onondaga County Department of Planning based on Real Property Data (2024).



(the average of all the County towns/villages was 12.0%). The Lake Region is the least dependent on households moving from within Onondaga County. This sub-region offers something rare and valuable, which is an idyllic setting on one of the most sought after lakes in Upstate New York, and perhaps in the northeast United States. The Lake Region’s rarity, in combination with a growing market, could plausibly elevate home values above and beyond their mid-2020s levels. Given the Lake Region’s role within the County market, and its demographics, it is reasonable to expect that Skaneateles, and the Village in particular, may be a location for developing senior-focused rental housing at some level. Management of rural, large lot residential development would likely continue to be an issue.

**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>					
The Town has not experienced significant development in hazard-prone areas over the past five (5) years.					
<b>Known or Anticipated Development in the Next Five (5) Years (2024 – 2029)</b>					
The Town does not anticipate significant development in hazard-prone areas over the next five (5) years.					

### 3.1. Changes in Priority

In the last five (5) years, the Town of Spafford has experienced an increase in heavy rainfall events, resulting in a focus on erosion control activities throughout the Town. Control of development pressure has also been a priority to avoid the exponential increase in real estate values. 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 Spafford’s 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 (local, county, state, federal)	Responsible Department/ Agency	Code Citation and Comments (e.g., Code Chapter, name of plan, explanation of authority, etc.)
<b>Planning Capability</b>				
Comprehensive Plan	No	N/A	N/A	N/A
Capital Improvements Plan	No	N/A	N/A	N/A
Floodplain Management / Basin Plan	No	N/A	N/A	N/A
Stormwater Management Plan	No	N/A	N/A	N/A
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	Yes	State, Local	Town Board	Skaneateles Watershed Municipal Partnership/Skaneateles Lake Watershed Education Program
Economic Development Plan	No	N/A	N/A	N/A
Comprehensive Emergency Management Plan	No	N/A	N/A	N/A
Emergency Operation Plan	No	N/A	N/A	N/A
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



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.)
Skaneateles Lake Harmful Algal Bloom Action Plan	Yes	State, Local	New York State Department of Environmental Conservation	Updated in 2018
<b>Regulatory Capability</b>				
Building Code	Yes	State, Local	Building and Codes Department	Chapter 16 of the New York State Building Code Local Law #3 of the Town Code
Zoning Ordinance	Yes	Local	Building and Codes Department	Local Law #2 of the Town Code
Subdivision Ordinance	Yes	Local	Building and Codes Department	Local Law #1 of the Town Code
NFIP Flood Damage Prevention Ordinance	Yes	Local	Building and Codes Department	Local Law #3 of the Town Code
NFIP: Cumulative Substantial Damages	No	N/A	N/A	N/A
NFIP: Freeboard	Yes	State, Local	Building and Codes 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	Town Board, Planning Board	Local Law #2, Section 14 of the Town Code
Stormwater Management Ordinance	No	N/A	N/A	N/A
Municipal Separate Storm Sewer System (MS4)	No	N/A	N/A	N/A
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	Building and Codes Department	Steep Slope Protection Law – Local Law #1 of the Town Code



## 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	
Mitigation Planning Committee	Yes	Town Committee for Flooding and Natural Hazards
Environmental Board/Commission	No	N/A
Open Space Board/Committee	No	N/A
Economic Development Commission/Committee	No	N/A
Maintenance programs to reduce risk	Yes	Highway Superintendent, Highway Department
Mutual aid agreements	No	N/A
<b>Technical/Staffing Capability</b>		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Town Engineer, Building and Codes Department
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Town Engineer, Building and Codes Department
Planners or engineers with an understanding of natural hazards	Yes	Town Engineer, Building and Codes Department
NFIP Floodplain Administrator	Yes	Code Enforcement Officer, Building and Codes Department
Surveyor(s)	Yes	Town Engineer, Building and Codes Department
Personnel skilled or trained in GIS applications	Yes	Town Engineer, Building and Codes Department
Scientist familiar with natural hazards	No	N/A
Warning systems/services	Yes	Onondaga County Emergency Communications (911)
Emergency Manager	No	N/A
Grant writer(s)	Yes	Town Engineer, Building and Codes Department
Staff with expertise or training in benefit/cost analysis	Yes	Consultant
Professionals trained in conducting damage assessments	Yes	Code Enforcement Officer, Building and Codes Department



### 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
Impact fees for homebuyers or developers of new development/homes	No
Stormwater Utility Fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No

### 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	No	N/A
Utilize social media for hazard mitigation education	No	N/A
Citizen boards or commissions that address issues related to hazard mitigation	No	N/A
Other programs already in place that could be used to communicate hazard-related information	Yes	Town Clerk, Office of the Town Clerk



Resource	Yes/No	Position/Department/Agency
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 reduce its vulnerability to the identified hazards. 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 Spafford.

**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)	No	N/A	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	N/A	N/A
New York State Department of Environmental Conservation Climate Smart Community	No	N/A	N/A
Storm Ready Certification	No	N/A	N/A
Firewise Communities classification	No	N/A	N/A
Natural disaster/safety programs in/for schools	No	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 Spafford’s 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> <i>(Limited funds)</i>		
Education and Outreach Capabilities		<b>X</b>	
Community Political Capabilities		<b>X</b>	
Community Resiliency Capabilities		<b>X</b>	



Capability Area	Degree of Hazard Mitigation Capability		
	<i>Limited</i> <i>(If limited, what are your obstacles?)</i>	<i>Moderate</i>	<i>High</i>
Capability to integrate mitigation into municipal processes and activities		X	

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

Based on the capability self-assessment in Section 4.6, the Town of Spafford 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).

- Increase stream protection and erosion efforts with improved riparian buffer code and/or policies.
- 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.
- 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.

### 5. NATIONAL FLOOD INSURANCE PROGRAM

The Town of Spafford 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
360594	12/13/1974	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 Spafford Floodplain Administrator information is listed in **Table 11**.

**Table 11. Floodplain Administrator**

Name	Title	Department	Phone Number
Howard Tanner	Code Enforcement Officer	Building/Codes Department	(315) 730-7439



## 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>6</sup>

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>7</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 Spafford.

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

Repetitive Loss Properties		Severe Repetitive Loss Properties	
Total	Occupancy	Total	Occupancy
0	--	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>			

<sup>6</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).

<sup>7</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).



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

Table 13. NFIP Policies

NFIP Policies	Insurance in Force	Total Claims Paid	Sum of Claims Paid
5	\$2,939	0	\$0

### 5.3. Participation Activities

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

- Provides the following services – permit review, GIS, inspections, and engineering capability.
- Enforces local floodplain regulations and monitors compliance.
- Floodplain management regulations meet or exceed FEMA or State minimum requirements.

#### 5.3.1. Regulatory

##### Flood Damage Prevention Ordinance

The Town of Spafford’s Flood Damage Prevention Chapter (*Local Law #3 of 2016*) 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 Local Law 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. (*Local Law #3 of 2016*)

### 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." (*Local Law #3 of 2016*)

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 Spafford's 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. During the performance period since the adoption of the previous Hazard Mitigation Plan, the Town of Spafford has made progress in 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
Ordinances	The Town has multiple local ordinances pertaining to the mitigation of hazards. These ordinances include the establishment of the Planning Board and the Zoning Board of Appeals, Building Code Ordinance (Local Law #3 of 2007), Flood Damage Prevention Ordinance (Local Law #3 of 2016), Zoning Ordinance (Local Law #2 of 2011), Subdivision Regulations (Local Law #1 of 2011), and the Steep Slopes Ordinance (Local Law #1 of 2022).
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 structures from future damage, with repetitive loss and severe repetitive loss properties as 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 TSP-1.</i>
Local Budget	The Town has a line item for mitigation projects/activities in the municipal budget and capital improvement budget.

## 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	The Town intends to develop a Comprehensive Plan. This Hazard Mitigation Plan should be incorporated into the Town’s Comprehensive Plan to protect and preserve local environmental assets, support a vibrant economy, and ensure public health, safety, and welfare. Hazard mitigation goals could align with the Comprehensive Plan’s vision, and hazard risk assessment information could be used to address vulnerabilities.
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.
Public Outreach	The Town could expand the information available on the Town’s website to include material on the hazards outlined in this Hazard Mitigation Plan and on climate change impacts on those hazards. Furthermore, the Town conducts public outreach to inform residents and businesses about natural hazards and to promote the importance of natural hazard risk reduction through hazard mitigation planning. <i>Refer to mitigation action TSP-2.</i>



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. **Table 16** provides information on significant hazard events that uniquely impacted the Town of Spafford.

**Table 16. Hazard Event History**

Date	Event Type <i>(Disaster Declaration, if applicable)</i>	Description
July 12, 2021	Flood	Warm, moist tropical air was present over central New York as a quasi-stationary warm front slowly moved through the region. These conditions triggered severe thunderstorms with damaging winds, leading to numerous reports of downed trees and power lines. Additionally, over four (4) inches of rainfall within several hours caused localized flooding on Bacher Road. Heavy rainfall washed out culverts, and one (1) culvert failure rendered a driveway impassable.
July 1, 2019	Flood	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. The hardest hit areas were the villages and towns of Moravia, Chittenango, Oneida, and Utica. Total rainfall amounts along a narrow corridor from Moravia to Utica generally ranged from 2.5 to five (5) inches, most of which fell in less than two (2) hours. Total damages from this event range between \$10 and \$15 Million countywide. The Town experienced damage to a large culvert.

## 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 17** outlines the *unique vulnerabilities and impacts* for the Town of Spafford 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 17. Hazard Vulnerability and Impact Assessment**

Hazard	Vulnerabilities and Impacts
<b>Drought</b>	The Town is located in the Skaneateles Watershed, which provides an unfiltered water supply to the City of Syracuse, making the Town uniquely vulnerable to extreme weather due to erosion and runoff into the Lake.



Hazard	Vulnerabilities and Impacts
<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 majority of the Town is agricultural. Heat waves/extreme heat events, which can increase drought, can damage crops on farmland and reduce irrigation capacity (low water supply), potentially reducing crop yields. Furthermore, outdoor workers (e.g., those working in farmland) are uniquely impacted by heat waves/extreme heat events because this population is highly vulnerable to heat-related illnesses (e.g., heat stroke, heat exhaustion, muscle cramps) due to prolonged exposure to the extreme temperatures and extraneous activities while being exposed to these conditions.
<b>Flood</b> <i>(riverine, flash/urban, ice jam, dam, and levee failure)</i>	Steep slopes within an unfiltered drinking water supply put the Town in a uniquely vulnerable position for decreasing water quality.
<b>Geological Hazards</b> <i>(landslides, land subsidence, mudboils)</i>	Steep slopes are particularly vulnerable to landslides, especially during heavy rainfall.
<b>Harmful Algal Bloom</b>	Skaneateles Lake is a primary water source; therefore, a harmful algal bloom would impact the Town’s water supply.
<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>	Much of the south end of the Town of Spafford is covered in hemlock forests, which are vulnerable to the Hemlock Woolly Adelgid. Additionally, the Emerald Ash Borer significantly impacts ash trees, posing a hazard of dead trees falling onto roadways, power utility lines, and communication lines.
<b>Severe Weather</b> <i>(severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm)</i>	Heavy rainfall and strong winds/damaging winds can cause damage to agricultural land and increase runoff, affecting water quality.
<b>Winter Weather</b> <i>(blizzards, heavy snow, ice storms, cold wave/extreme cold, nor’easter)</i>	The Town of Spafford is at a higher elevation, and the ridge roads between Otisco Lake and Skaneateles Lake can be particularly affected by winter weather, including strong winds and heavy snow. Damage to utility lines can cause power outages, which can uniquely impact vulnerable populations (e.g., the elderly, children, and electrically dependent individuals). Furthermore, if downed power lines and trees block a road, emergency services may not be able to reach the community in a timely manner.
<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 18** 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 18. 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	Increased
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> )	Increased
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> )	Increased
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	Increase
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> )	Increase
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> )	Increase
Wildfire ( <i>wildfire smoke</i> )	No Change Anticipated

**Table 19** 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 19. 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



Hazard	Vulnerability and Impact
Harmful Algal Bloom	Increased
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> )	Increased
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	Increase
Earthquake	No Change Anticipated
Heat Wave/Extreme Heat	Increase
Flood ( <i>riverine, flash/urban, ice jam, dam and levee failure</i> )	No Change Anticipated
Geological Hazards ( <i>landslides, land subsidence, mudboils</i> )	No Change Anticipated
Harmful Algal Bloom	Increase
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> )	Increase
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> )	Increase
Wildfire ( <i>wildfire smoke</i> )	No Change Anticipated

Table 20 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 20. Changes in Development 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	Increased
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> )	Increased
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> )	Remained the Same
Wildfire ( <i>wildfire smoke</i> )	Remained the Same



Hazard	Vulnerability and Impact
<i>Future Vulnerability and Impact</i>	
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	Increase
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> )	Increase
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> )	Increase
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 of Spafford anticipates that in the next five (5) years an increase in population and development will occur exposing people and structures to the hazards identified in this Plan, but most specifically to drought, heat wave/extreme heat, flood, geological hazards, harmful algal bloom, invasive species and infestation, severe weather, winter weather, and wildfire. 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.
- The majority of the Town is agricultural, which is vulnerable to the impacts of drought, heat waves/extreme heat, and severe weather events.
- Pure water from Skaneateles Lake, the primary source of water for the Town, flows unfiltered to residents in Spafford. The frequency of harmful algal blooms is expected to increase, potentially impacting the Town's water supply.
- There is an aging population within the Town, and this population is uniquely vulnerable to heat waves/extreme heat, severe weather, and winter weather. As extreme weather and temperatures are expected to increase, the vulnerability and exposure for the elderly in the community increase as well.

## 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>8</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>9</sup>

Table 21 identifies critical facilities in the community located in the 100-year and 500-year floodplain.

**Table 21. 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		
None identified								

## 10. HAZARD RISK RANKING

Table 22 presents the local hazard ranking for the Town of Spafford 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 22 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 22. Town of Spafford 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>
Winter Weather (Blizzards, Lake Effect Snow, Nor'easter, Ice Storm)	3	12	14	21	47	67

<sup>8</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>9</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>



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>
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
Drought	2	18	14	22	54	54
Flood (Urban/Flash Flood)	2	12	11	29	52	52
Cold Wave/Extreme Cold <i>(Winter Weather)</i>	2	12	14	21	47	48
Flood (Riverine/Creek, Ice Jam)	2	12	6	24	42	43
Harmful Algal Bloom	2	9	10	20	39	41
Heat Wave/Extreme Heat	2	9	11	19	39	41
Invasive Species and Infestation	2	6	6	15	27	30
Tropical Storm/Hurricane <i>(Severe Weather)</i>	1	9	16	24	49	27
Dam and Levee Failure <i>(Flood)</i>	1	9	6	23	38	22
Hail <i>(Severe Weather)</i>	1	6	16	14	36	21
Earthquake	1	6	16	12	34	20
Tornado <i>(Severe Weather)</i>	1	6	6	22	34	20
Landslide <i>(Geological Hazards)</i>	1	6	6	13	25	15
Land Subsidence <i>(Geological Hazards)</i>	1	3	6	13	22	14
Mudboils <i>(Geological Hazards)</i>	1	3	6	12	21	13



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>
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 Spafford agreed on **eight (8)** mitigation actions that apply to the jurisdiction’s properties for which it has jurisdictional responsibility and authority. A summary of the Town’s mitigation actions status is listed in **Table 23**.

**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 22**). Hazards that ranked *low* (earthquakes, geological hazards, and wildfires) will not have specific mitigation actions detailed in this document.

**Table 23. Town of Spafford Mitigation Action Summary**

Status		Mitigation Action Total	
Continuous		6	
In Progress/Not Yet Completed		0	
No Progress/Not Yet Started		2	
New		0	
<b>TOTAL</b>		<b>8</b>	
Complete		1	
Discontinued		0	
Mitigation Actions per Hazard			
Drought	5	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	5	Severe Weather <i>(severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm, nor’easter)</i>	7
Flood <i>(riverine, flash/urban, ice jam, dam, and levee failure)</i>	7	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>	Where appropriate, support retrofitting or relocation of structures in high-hazard areas, prioritizing structures that have experienced repetitive losses.				
<b>Action Number</b>	TSP-1	<b>Goal(s) Addressed</b>	2, 3, 6	<b>Prioritization Score</b>	13/15
<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 Spafford Building and Codes Department	<b>Supporting Agency / Organization (If applicable)</b>		N/A	
<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		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	No	<b>Additional Details (optional)</b>	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>	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:				
	<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>	TSP-2	<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>		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 Spafford Building and Codes Department	<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>	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>	TSP-3	<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 Spafford Building and Codes 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>	<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>	TSP-4	<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 Spafford Building and Codes 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>	TSP-5	<b>Goal(s) Addressed</b>	1, 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 Spafford Planning Board, Town of Spafford 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>	Develop, enhance, and maintain mutual aid agreements with surrounding municipalities and counties.				
<b>Action Number</b>	TSP-6	<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 Spafford 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>	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>	Replace the culvert at 150 Spafford Landing Road.				
<b>Action Number</b>	TSP-7	<b>Goal(s) Addressed</b>	1, 3, 4, 5, 6	<b>Prioritization Score</b>	15/15
<b>Year Added to Plan</b>	2019	<b>Timeline (estimated)</b>	1 to 2 Years	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather, Winter 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 Spafford Highway Department	<b>Supporting Agency / Organization (If applicable)</b>	N/A		
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	High	<b>Potential Funding Source</b>	General Fund (Staff Time), BRIDGE NY Program funds, HMGP, FMA		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	No	<b>Additional Details (optional)</b>	This culvert is vulnerable to flooding due to heavy rainfall and/or melting snow. The culvert poses a risk of flooding in this area of the Town.		



<b>Mitigation Action</b>	Replace the culvert on Moonhill Road.				
<b>Action Number</b>	TSP-8	<b>Goal(s) Addressed</b>	1, 3, 4, 5, 6	<b>Prioritization Score</b>	N/A
<b>Year Added to Plan</b>	2019	<b>Timeline (estimated)</b>	N/A	<b>Implementation Priority</b>	N/A
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather, Winter Weather				
<b>Project Status</b>	Complete	<i>If Discontinued, provide reason.</i>	N/A		
<b>Benefits (Loss Avoided)</b>	N/A				
<b>Lead Agency / Organization</b>	Town of Spafford Highway Department	<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>	Replace the two (2) culverts on Bacon Hill Road.				
<b>Action Number</b>	TSP-9	<b>Goal(s) Addressed</b>	1, 3, 4, 5, 6	<b>Prioritization Score</b>	15/15
<b>Year Added to Plan</b>	2019	<b>Timeline (estimated)</b>	1 to 2 Years	<b>Implementation Priority</b>	High
<b>Hazard(s) Mitigated</b>	Flood, Severe Weather, Winter 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 Spafford Highway Department	<b>Supporting Agency / Organization (If applicable)</b>	N/A		
<b>Additional Participating Jurisdictions (If applicable)</b>	N/A				
<b>Estimated Cost</b>	High	<b>Potential Funding Source</b>	General Fund (Staff Time), BRIDGE NY Program funds, HMGP, FMA		
<b>Critical Facility (Critical Facility located in 1% floodplain?)</b>	No	<b>Additional Details (optional)</b>	These culverts are vulnerable to flooding due to heavy rainfall and/or melting snow. The culvert poses a risk of flooding in this area of the Town.		



## 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 Spafford 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 Spafford Planning Area

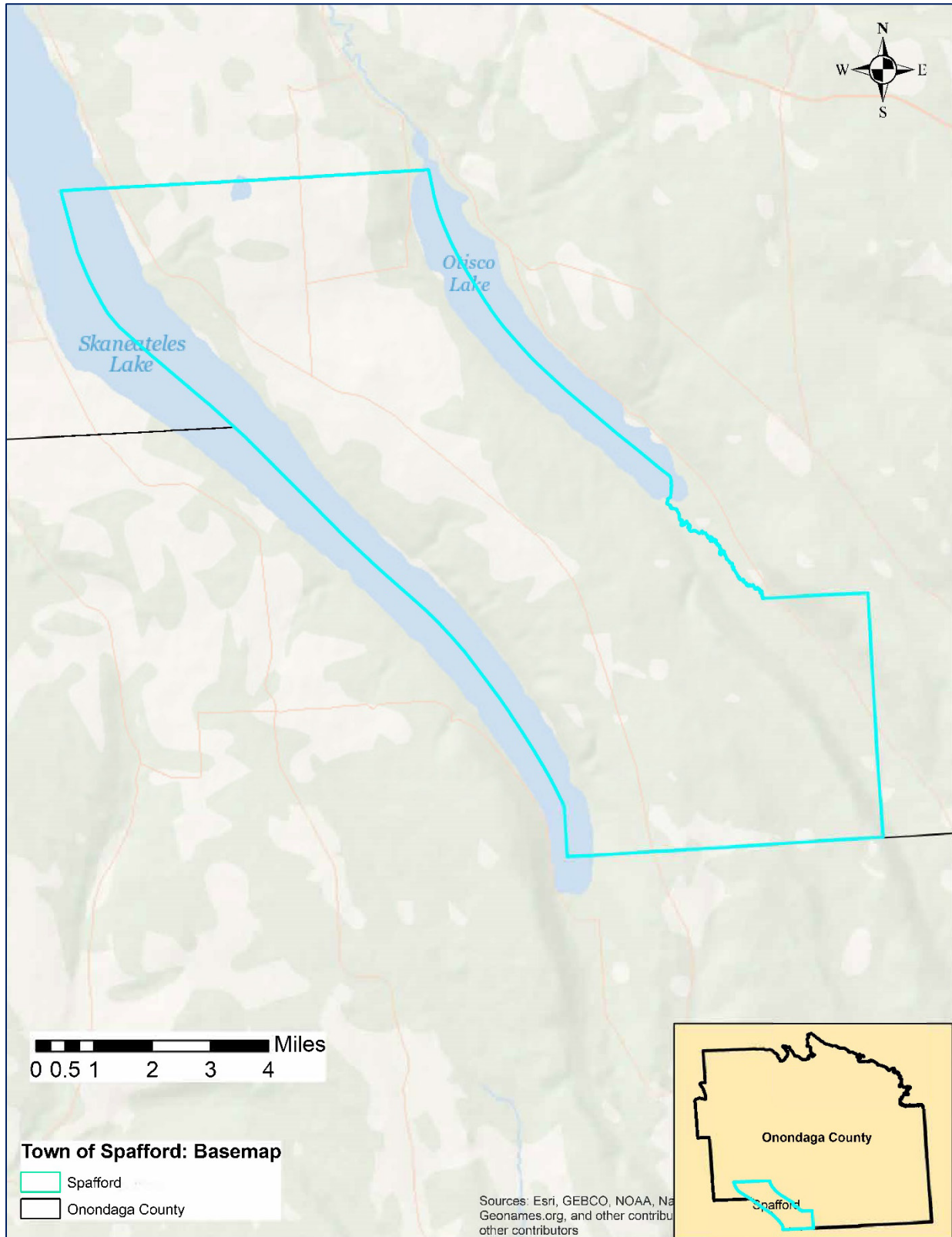




Figure 2. Critical Facilities

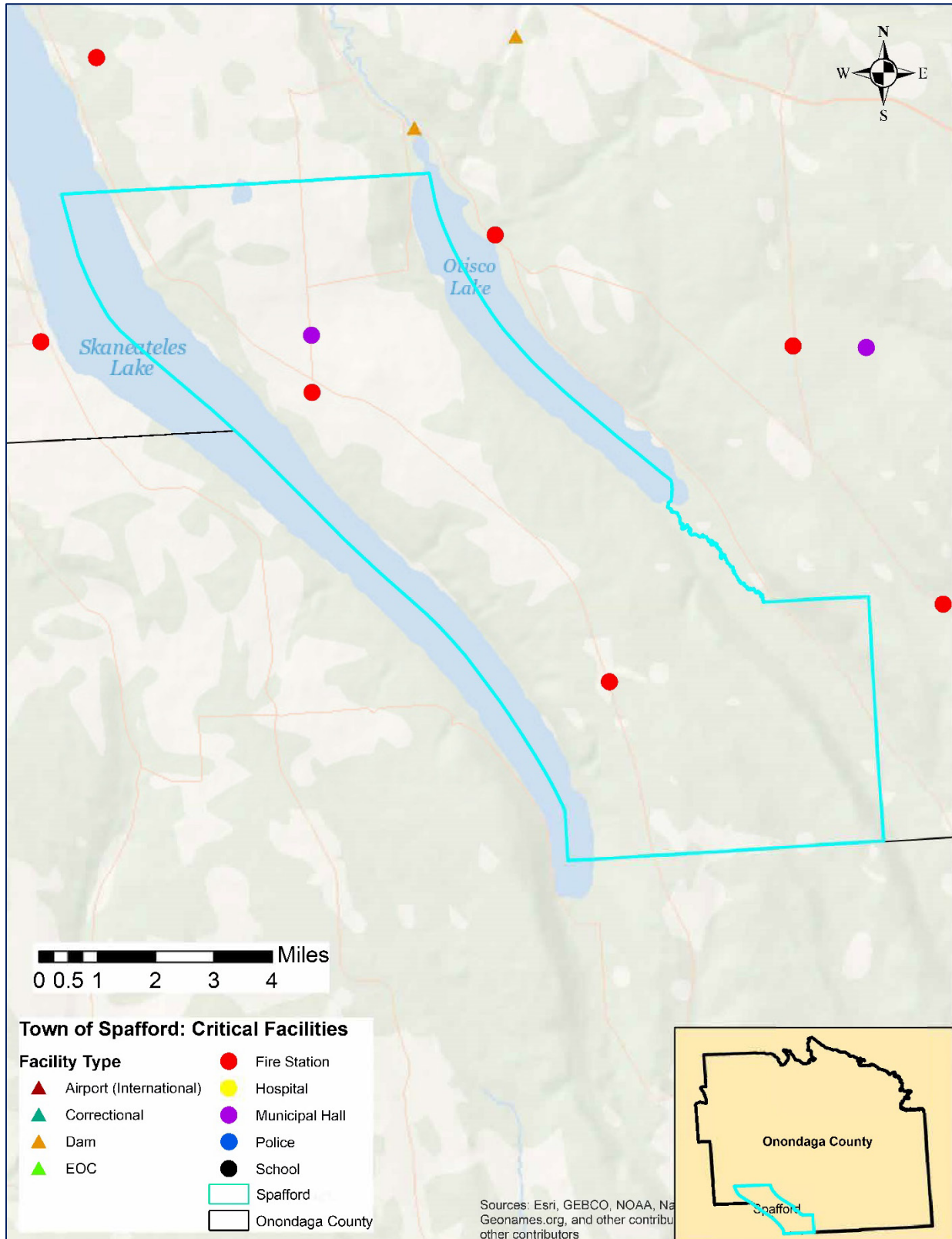
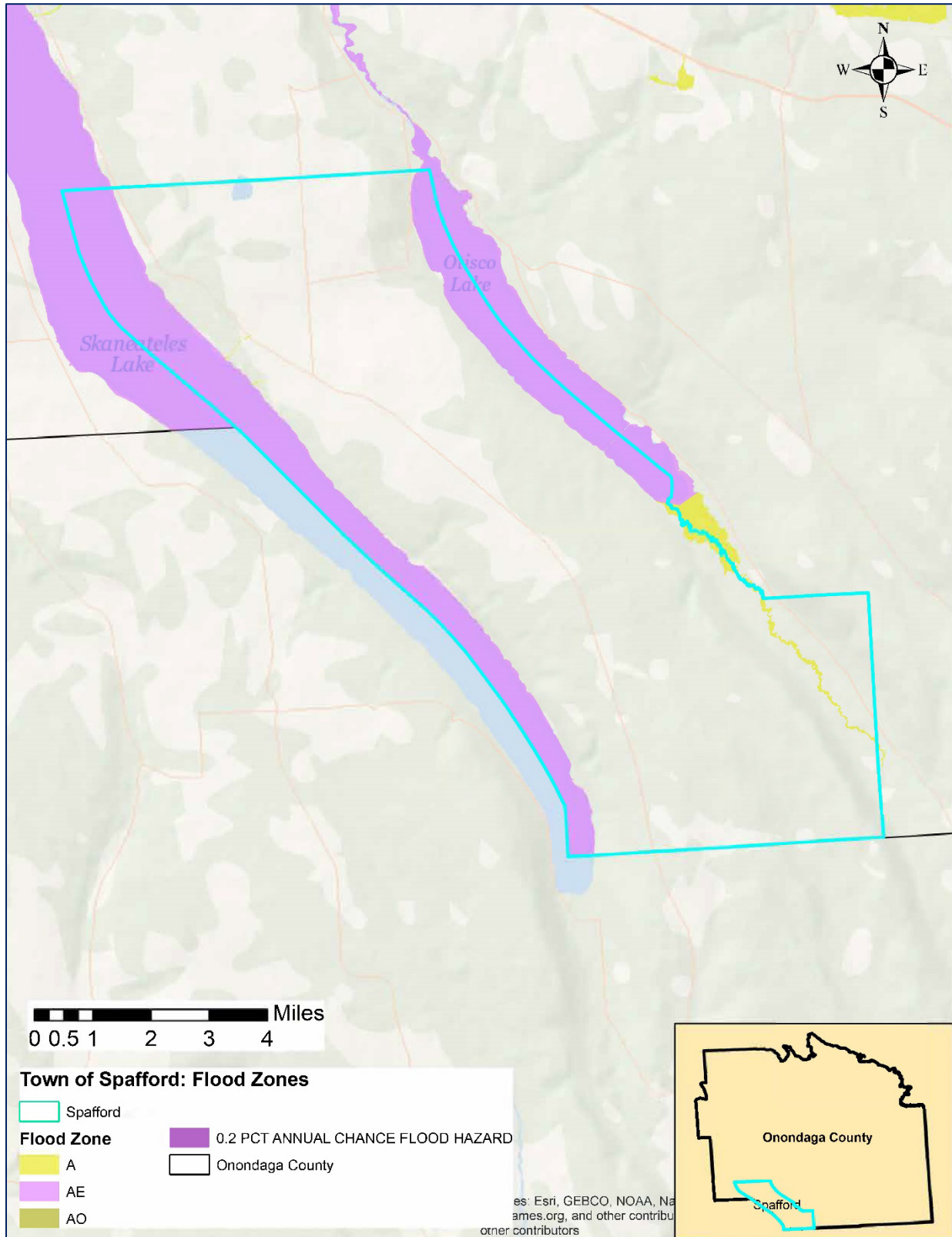




Figure 3. Special Flood Hazard Area





**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:** SPAFFORD

**Name of Authorized Representative:**  
Mary Menapace ZBA

**Signature of Authorized Representative:**  
*Mary Menapace*

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

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

**Name:** Mary Menapace  
**Title:** ZBA Board member  
**Department:** ZBA  
**Phone Number:** 315 727-9405  
**Email:** msmenapace@gmail.com

**Name:** Chris Kozub  
**Title:** Town Supervisor  
**Department:**  
**Phone Number:**  
**Email:** ckozub@townofspafford.com

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]*